XV-C700

SERVICE MANUAL

AEP Model
UK Model
Australian Model

SONY
INPUT SELECT
VIDEO ATT
PHASE CORRECT
GAMMA
COLOR
REVERSE
AUDIO MIXER
POWER
MIC
MIC LEVEL
LINE LEVEL
SOURCE LEVEL
MASTER
BACK COLOR GENERATOR
COLOR CORRECT
FADER
PAL
VIDEO MULTI COLOR CORRECTOR XV-C700

SPECIFICATIONS

Video color system	PAL only
Video input	SOURCE IN 1 and 2. (phono jack) 1 Vp-p, 75 ohms, unbalanced, sync negative
Video output	PROCESSED OUT 1 and 2 (phono jack) SOURCE OUT 1 and 2 (phono jack) INVERSE OUT (phono jack) 1 Vp-p, 75 ohms, unbalanced, sync negative
Audio input	SOURCE IN 1 and 2 (2 phono jacks) LINE IN (2 phono jacks) Input level: −10 dBs (0dBs=0.775Vrms) Input impedance: more than 47 k ohms MIC (minijack) Input impedance: more than 3 k ohms
Audio output	PROCESSED OUT 1 and 2 (2 phono jacks) SOURCE OUT 1 and 2 (2 phono jacks) INVERSE OUT (2 phono jacks) Output level: −10 dBs at 47 k ohms load Output impedance: less than 10 k ohms

Power supply	European model: AC 220V, 50Hz U.K. and Australian models: AC 240V, 50Hz
Power consumption	30W
Operating temperature	5° to 40°C (41°F to 104°F)
Storage temperature	−20° to 60°C (−4°F to 140°F)
Dimensions	430 x 80 x 325 mm (w/h/d) (17 x 3$^1/_4$ x 12 $^7/_8$ inches)
Weight	4.5kg (9.9 lb)

Design and specifications subject to change without notice.

This appliance conforms with EEC Directives 76/889 and 82/499 regarding interference suppression.

VIDEO MULTI COLOR CORRECTOR

SONY®

MICROFILM

ACC

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

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SECTION 1
GENERAL

1-1. FEATURES

This unit enables you to adjust and correct color during editing of a pre-recorded video tape or during camera recording. Its wide variety of functions will give greater enjoyment in video making.

Color correction using a joystick-type controller
A joystick-type controller is provided for continuous compensation of the white balance. Press the WIDE RANGE button if a greater range of correction is needed.

Color adjustment
Use to adjust the colors of the image.

Color bar generator
You can adjust the monitor while displaying the color bar on the screen.

Phase correct
You can adjust the relative strength of the outlines around images. This function is useful in compensating for false outlines caused by tape editing.

Gamma compensation
You can adjust the luminous intensity of the screen without destroying the outlines of the recorded object.

Negative/positive reversing
A negative color film can be reversed and recorded on a video tape.

Wiper and background color selector
You can use the WIPE lever to produce 15 different wiper effects either up and down or left and right. There are eight separate background colors available in addition to the color bar.

Video art
You can paint the video image with the desired color. The painting can be performed either from the brighter or darker portions of the image.

Video/audio fader
You can control Fade In and Fade Out of both image and sound with a single operation of this lever. Raising the lever gives white fading, while lowering it gives black fading.

Audio mixing
The unit allows editing of sound as well as video image.

1-2. PRECAUTIONS

On safety

- Before operating, check that the operating power voltage and frequency of the unit are identical with those of your local power supply.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out while holding the plug. Never pull the cord itself.

On installation

- Allow adequate air circulation to prevent internal heat build-up.
- Do not install the unit near heat sources such as radiators or air ducts or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- The unit is designed for operation in a horizontal position. Do not install it in an inclined position.
- Do not place any heavy object on the unit.

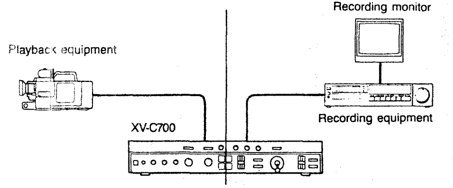
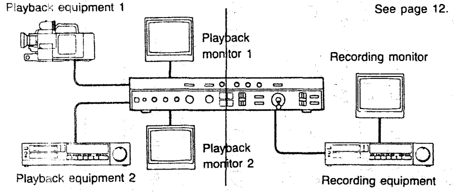
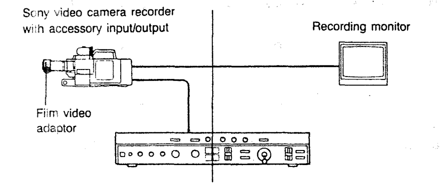
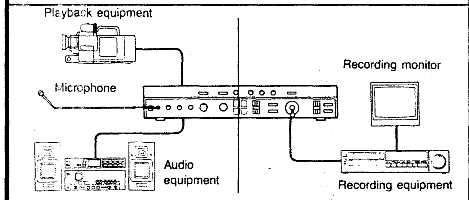
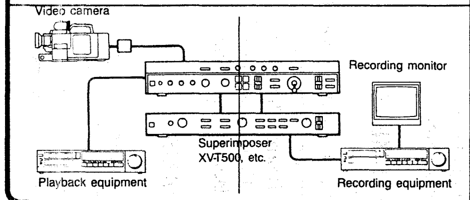
On cleaning

Clean the cabinet, panel, and controls with a soft dry cloth, or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent, such as alcohol or benzine, which might damage the finish.

On repacking

Do not throw away the carton and packing materials. They make an ideal container in which to transport the unit. When shipping the unit to another location, repack it as illustrated on the carton.

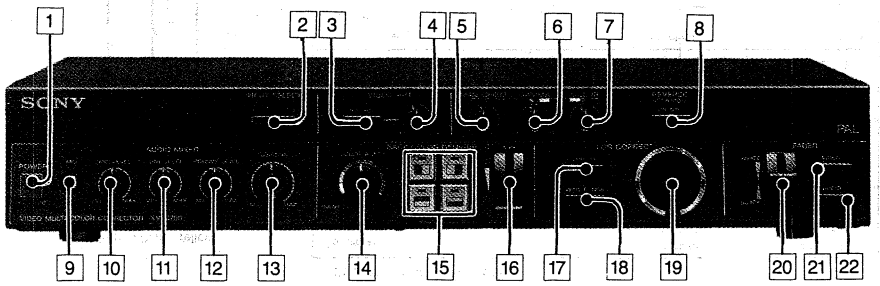
1-3. QUICK GUIDE TO CONNECTIONS

Source side	Recorder side	What XV-C700 can do
 Playback equipment XV-C700 Recording monitor Recording equipment		• Simultaneous editing with color adjustment and correction. • Wiper and fader functions (These functions are also available with the following connections as well as this connection.)
 Playback equipment 1 Playback monitor 1 See page 12. Recording monitor Playback monitor 2 Playback equipment 2 Recording equipment		• Editing while monitoring two different sources
 Sony video camera recorder with accessory input/output Recording monitor Film video adaptor		• Simultaneous camera recording with color correction and compensation • A negative film can be reversed to make a positive video image.
 Playback equipment Microphone Recording monitor Audio equipment Recording equipment		• Music and narrations can be mixed with the soundtrack of a pre-recorded tape while editing.
 Video camera Recording monitor Superimposer XV-T500, etc. Playback equipment Recording equipment		• A variety of editing is possible by combining wiper functions and superimposition of titles taken from the camera.

Caution
Television programs, films, video tapes and other materials may be copyrighted.
Unauthorized duplication of such material may be contrary to the provisions of the copyright laws.

1-4. LOCATION AND FUNCTION OF CONTROLS

Front panel



1 **POWER switch**

2 **INPUT SELECT button**
Selects the desired input signal. Press this button so that lamp [1] lights up for input from the SOURCE IN 1 jacks and that lamp [2] lights up for input from the SOURCE IN 2 jacks.

3 **VIDEO ART REVERSE switch**
Selects where to start painting of the image, from either high (OFF) or low (ON) luminance portions of the image.

4 **VIDEO ART control**
Controls the painting of the video image with color selected by the COLOR SELECT knob.

5 **PHASE CORRECT control**
Adjusts the strength of the image outlines.

6 **GAMMA control**
Adjusts the luminous intensity and color signals to give the recorded object a suitable brightness.

7 **COLOR control**
Adjusts the color intensity.

8 **REVERSE (negative/positive) switch**
Press to reverse the output signal to either negative or positive. Press again to turn off.

9 **MIC (microphone) jack (mini, monaural)**

10 **MIC LEVEL control**
Controls the level of sound from a microphone connected to the MIC jack.

11 **LINE IN LEVEL control**
Adjusts the level of sound input from the LINE IN jacks on the rear panel.

12 **SOURCE LEVEL control**
Controls the level of sound input from the SOURCE IN jacks.

13 **MASTER control**
Adjusts the level of sound output from the PROCESSED OUT jacks.

14 **COLOR SELECT knob**
Selects the wiper color and color bar.

15 **WIPE PATTERN buttons**
Press to select the wiper direction. The lamp on the pressed button lights up. Press the switch again to turn it off.

16 **WIPE lever**
Controls the wiper.

17 **COLOR CORRECT switch**
Press when you wish to use the COLOR CORRECT lever to compensate the white balance or to color the image at random. Press again to turn off.

18 **WIDE RANGE button**
Press to expand the volume of color correct compensation more than two-fold. Press again to turn off.

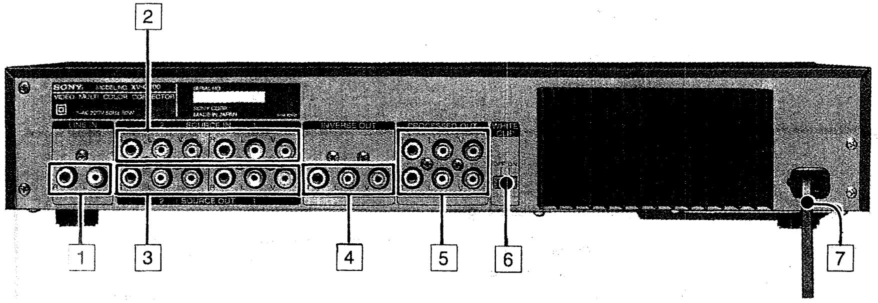
19 **COLOR CORRECT lever**
Used for white balance compensation and random coloring.

20 **FADER lever**
Normally keep at the central position for both image and sound. Move this lever up for white fading of the picture and down for black fading. Sound gradually decreases whichever way the lever is moved.

21 **VIDEO button**
Press when you wish to fade the screen in or out. Press again to turn off.

22 **AUDIO button**
Press when you wish to fade sound in or out. Press again to turn off.

Rear panel



1 **LINE IN jacks (phono)**
Connect to the line output jacks of a stereo amplifier when mixing sound.

2 **SOURCE IN jacks 1 and 2 (phono)**
Connect to the video and audio output jacks of a VCR or video camera recorder.

3 **SOURCE OUT jacks 1 and 2 (phono)**
Signals input to the SOURCE IN jacks are output from these jacks as they are. Connect to the video and audio input jacks of your monitor.

4 **INVERSE OUT (reverse channel output) jacks (phono)**
Signals not selected by the INPUT SELECT switch are output unprocessed. Connect to the input jacks of your monitor or superimposer.

5 **PROCESSED OUT jacks 1 and 2 (phono)**
Signals processed by this unit are output. Connect to the video and audio input jacks of your VCR, monitor or superimposer.

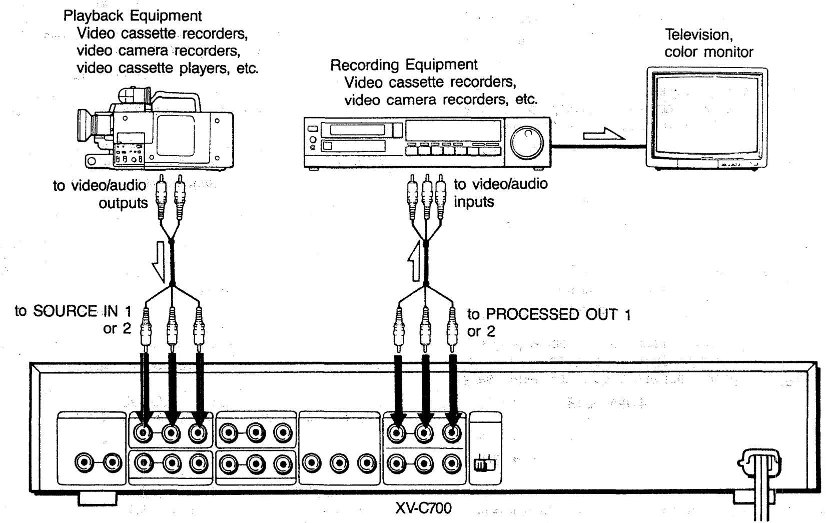
6 **WHITE CLIP switch**
Set to ON to correct white portions of an excessively bright image. Normally keep at OFF.

7 **Power cord (mains lead)**
Connect to an AC power (mains) outlet.

1-5. BASIC CONNECTION

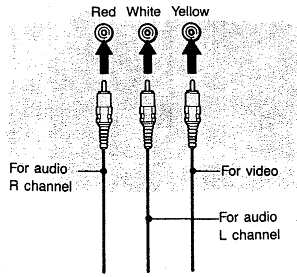
CONNECTION

The arrow (⇨) indicates direction of signal flow.


Playback Equipment
Video cassette recorders,
video camera recorders,
video cassette players, etc.
Recording Equipment
Video cassette recorders,
video camera recorders, etc.
Television,
color monitor
to video/audio outputs
to video/audio inputs
to SOURCE IN 1 or 2
to PROCESSED OUT 1 or 2
XV-C700

NOTES ON OPTIONAL CONNECTING CABLES

- Disconnect the power from all units prior to making any connections.
- Make sure all cable connectors are firmly inserted into the jacks.
  Loose connections may cause hum and noise.
- This unit has the following types of connecting jacks. Make sure colors match when using colored connecting cables.

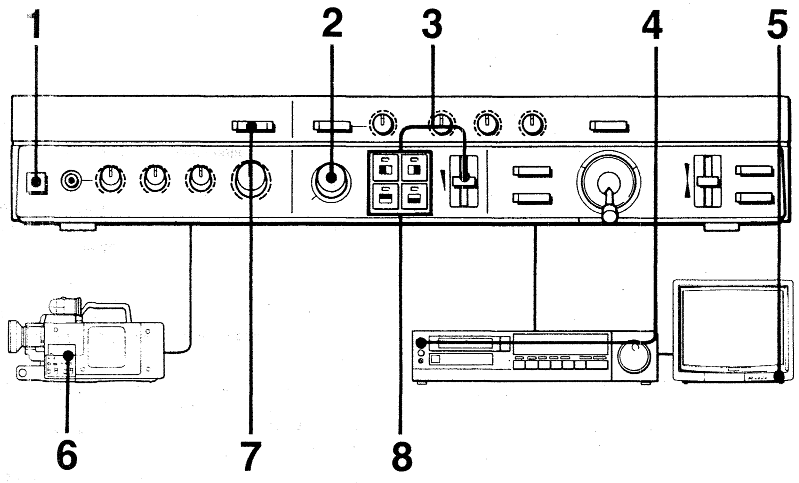

Red
White
Yellow
For audio R channel
For video
For audio L channel

Optional connecting cables

For stereo video equipment	VMC-604S (1m) VMC-605S (2m)	(phono plugs)		(phono plugs)
For monaural video equipment	VMC-602MS (1m) VMC-603MS (2m)	(phono plugs)		(phono plugs)
For stereo audio equipment	RK-74A (1.5m)	(phono plugs)		(phono plugs)
For monaural audio equipment	RK-105A (1.5m)	(miniplug)		(phono plugs)
For connection to ACCESSORY IN/OUT jack of Sony video camera recorder	AVM-T515V (1.5m)	(twin miniphono plug)		(phono plugs)

1-6. ADJUSTMENT OF MONITOR AND PREPARATION

Before beginning color correction using this unit, you should adjust your monitor so that colors appearing on the monitor screen will not be deceptive.



1 Press the POWER switch to turn the power on.

2 Set the COLOR SELECT knob to COLOR BAR.

3 Press one of the WIPE PATTERN buttons and move the WIPE lever to its uppermost position.

4 Turn on the recording VCR and set the input switch to LINE INPUT.

5 Turn on the television/monitor and select the appropriate input so that the color bar appears on the screen.

Adjustment of the Monitor

① **Adjusting brightness**
Turn the monitor's color control to the minimum so that the color bar appears in black and white. Adjust the brightness until the 8 bars are clearly distinguished.

② **Adjusting color intensity**
Adjust the monitor using its color control.

6 Turn on the playback VCR.

7 Press the INPUT SELECT switch so that the lamp of the desired input source (either [1] or [2]) lights up.

8 Press the activated WIPE PATTERN button (with the lamp lit) to turn it off. The color bar disappears.

Caution
When recording the color bar or using it to adjust the color on the monitor, make sure that the power of the playback VCR is turned off.
Signals being input from the SOURCE IN jacks may distort the color bar.

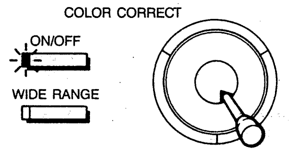
1-7. COLOR ADJUSTMENT AND CORRECTION DURING EDITING

Insert the recorded tape into the playback VCR, set to the playback mode, and carry out the following adjustments.

Refer to the photographs provided on the attached color reference sheet.

COLOR CORRECT

To make "supposed-to-be white" objects properly white
Press the COLOR CORRECT switch and move the lever.



This allows correction of the white balance even in cases where adjustment could not be made during video camera recording.

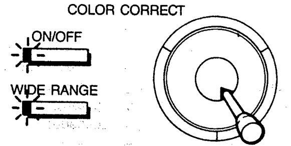
You can even create special color effects with this function. B

A color screen can be changed gradually to monotone or a monotone screen gradually to color. Setting COLOR control to the leftmost position (minimum) may provide better results.

Caution
The desired color may not be generated if a video source without burst signals is input (from a monochrome video camera, etc.)

WIDE RANGE

For a greater range of corrections
Press the WIDE RANGE button and move the COLOR CORRECT lever.



The color compensation volume expands more than two-fold when the WIDE RANGE button is pressed.

Note
Certain TV sets have a muting function which may cause the screen to go blank when noise-ridden pictures, such as high-speed picture search images, are processed by the unit.

WHITE CLIP

When unable to adjust the white using the COLOR CORRECT lever
Set the WHITE CLIP switch on the rear panel to ON.

You can now compensate color with the white segments of an excessively bright screen. Even after adjusting the white balance, white clouds in a clear sky may appear yellowish when the sky's color is matched to the correct shade of blue. Turning the WHITE CLIP switch ON will prevent this yellowing, giving the picture a natural white color.

Note
Normally, this switch should be set to OFF.

COLOR control

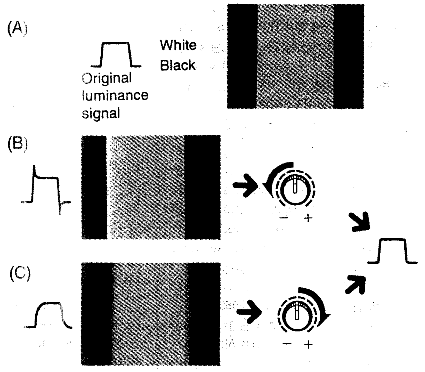
To adjust color intensity
Turn the COLOR control.
- Turn the control clockwise to obtain a deeper color.
- Turn the control anticlockwise to obtain a lighter color.
- Normally, this control should be set to the center detent position.

PHASE CORRECT

To correct false outlines after repeated editing
- Turning the control toward [+] makes the overall contrast sharper.
- Turning the control toward [−] allows you to eliminate false outlines around the edges of the picture.
- Normally, this control should be set to the center detent position.

Detailed explanation

Phase correct
Repeated editing of a video tape causes the original luminance signal to change gradually from Diagram (A) to Diagram (B) or (C). While this depends to some extent on the VCR being used, it is due to fluctuations in the frequency response in the lower frequencies that cause phase shift in these lower frequencies. The wave shape in Diagram (B) causes false black or white outlines to appear around the objects on screen. To eliminate these outlines, turn the PHASE CORRECT control toward [−]. The wave shape in Diagram (C) causes a lack of clarity in the entire picture. Turning the PHASE CORRECT control toward [+] will make the contrast far sharper.

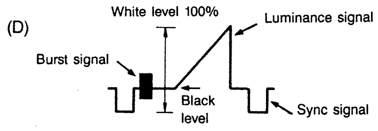


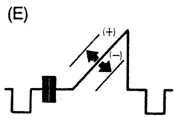
GAMMA control

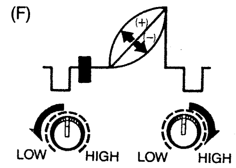
To correct pictures that are either too bright or dark
- When you wish to brighten a dark subject on a bright background, turn the GAMMA control toward [+].
- When you wish to make a bright subject on a dark background easier to see, turn the control knob toward [−].
- Normally, this control should be set to the center detent position.

Gamma compensation
As shown in Diagram (D), a video signal is composed of a luminance signal, a color signal, a sync signal, and a color burst signal. The details of the video image are determined by the luminance signal, and the GAMMA function serves to offer non-linear correction of the luminance and color signal.

Diagram (E) shows standard luminance correction. In this case, the white, black, and intermediate segments turn white and black in the same ratios. This causes the object to lack overall clarity. Diagram (F) shows correction of the luminance signal using the GAMMA function. Turning the GAMMA control knob to the right causes the high luminance level zones (white) and low level zones (black) to stay constant, while the luminance signal in the central area increases, as shown in the (+) area in the graph. This results in the entire picture becoming whiter without destroying the white and black outlines. Turning the control anticlockwise causes the adjustment shown in the (−) area, with the result that the entire picture becomes darker without destroying the outlines of the subject.







1-8. OTHER FUNCTIONS

NEGATIVE/POSITIVE REVERSING

Recording a negative film onto a VCR

Using this unit with a video camera recorder equipped with ACCESSORY IN/OUT jacks (such as the Sony CCD-V100E) allows you to output the signal supplied by the camera before it is recorded. (The optional AVM-T515V cable is needed for connection.) After being processed by this unit, the signal is returned to the video camera recorder and recorded. The addition of an optional film video adaptor (such as the Sony HVT-80) enables you to use this unit's negative/positive reverse function to reverse a negative film and record it on the video.

1 Connect the optional AVM-T515V's twin miniplug to ACCESSORY IN/OUT of Sony video camera recorder, and phono plug "IN" to SOURCE IN 1 or 2 V and phono plug "OUT" to PROCESSED OUT 1 or 2 V.

2 Set the negative film in the video camera recorder following the instructions for the film video adaptor.

3 Press the REVERSE switch on this unit.

4 Carry out the necessary adjustments (GAMMA, COLOR, etc.) while watching the monitor.

5 When you have completed all adjustments, start recording on the VCR.

WIPE

Changing scenes with the desired color and pattern.

1 Set the VIDEO ART control to MAX.

2 Choose a background color from eight different colors (white, yellow, cyan, green, magenta, red, blue, and black) by turning the COLOR SELECT knob. Turn the knob full left to put the color bar on the screen.

3 Press the WIPE PATTERN button(s) to select the desired wipe pattern (wipe direction).

4 Raising the WIPE lever causes the picture to be wiped with the color and pattern selected. Lowering the lever causes the picture to appear gradually from a colored background.

Caution
The desired background color may not be obtained if a video source without burst signals is input (from a monochrome video camera, etc.)

VIDEO ART

Paint the video image with the selected color, starting from either high (with VIDEO ART REVERSE switch OFF) or low (ON) luminance portions of the image.

1 Set the WIPE lever to the uppermost position.

2 Press any one of the WIPE PATTERN buttons.

3 Select the desired color for video art operation using the COLOR SELECT knob.

4 Turn the VIDEO ART control.

For video art OUT:
Turn the VIDEO ART control from MIN to MAX. You can gradually paint the image with the selected color. The painting starts from brighter portions of the image when the VIDEO ART REVERSE switch is OFF, and from darker portions when ON.

For video art IN:
Turn the VIDEO ART control from MAX to MIN. You can make the image gradually return to natural from the screen painted with the selected color. Darker portions of the image first return to natural when the VIDEO ART REVERSE switch is OFF, and brighter portions first when ON.

Caution
The VIDEO ART function is coupled with WIPE. Ensure that the WIPE lever is set to the uppermost position. Otherwise the desired VIDEO ART effects cannot be obtained.

FADER

Gradual fade in of sound and picture at the beginning and end of the recording creates dramatic effects.

1 Press either the VIDEO or AUDIO button and turn the lamp on to fade either the picture or sound, or both switches to do both operations at once.

2 Raise the FADER lever to fade out to white, and lower the lever to fade out to black. Move the lever toward the center to fade in on the picture from either a black or white screen.
- The sound gradually decreases as the FADER lever is moved away from the center setting, regardless of direction.

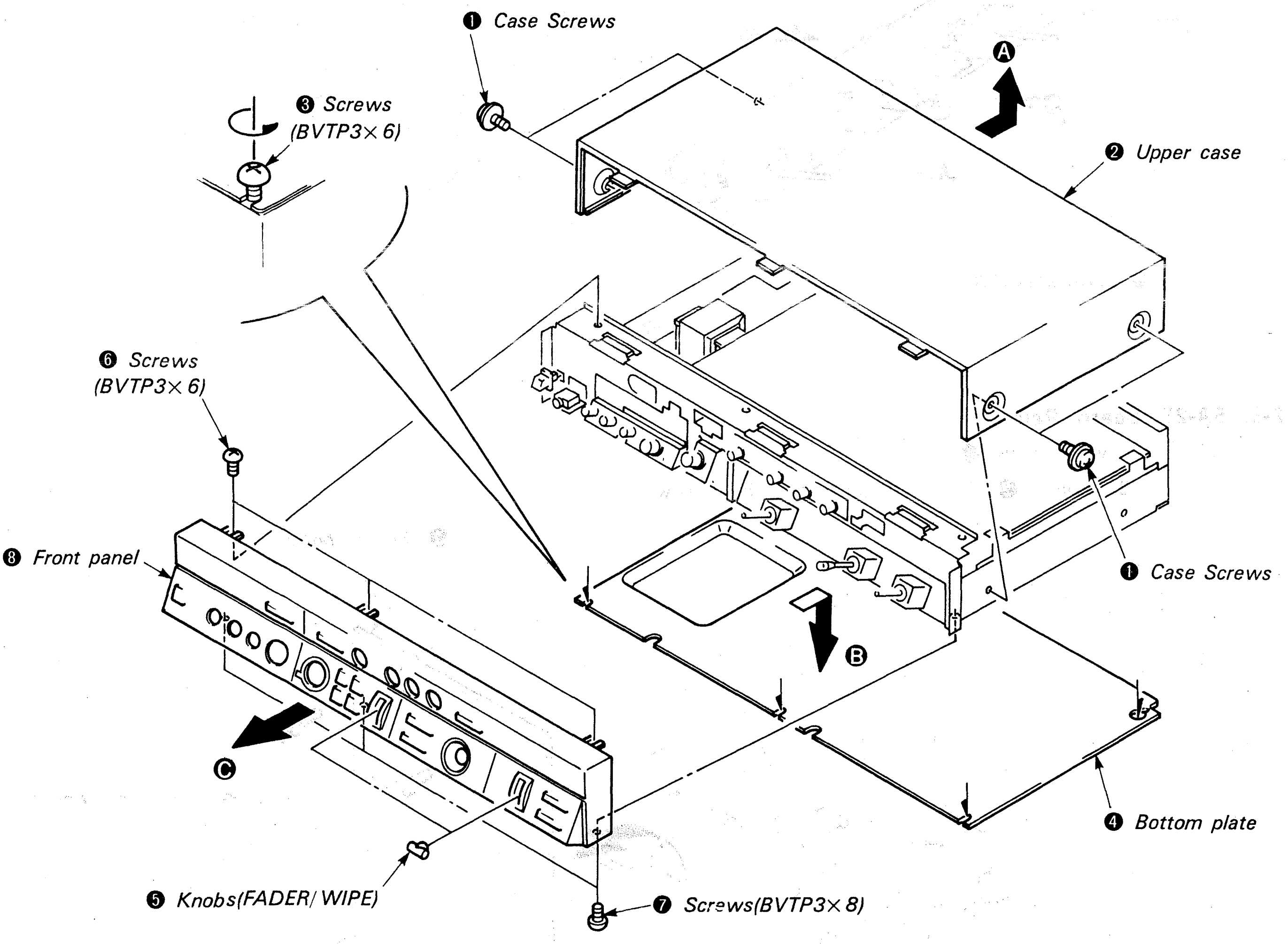
1-9. TROUBLESHOOTING

Symptom	Possible causes and treatments
No power	The power cord is not plugged in.
Picture of the input source does not appear on the screen	• INPUT SELECT switch is not correctly set. • The FADER VIDEO switch is depressed and the FADER lever is not in the level position. • The WIPE PATTERN button is depressed and the WIPE lever is set to the uppermost position. • The input selector on the recorder has not been set correctly when the monitor is connected to the recorder.
No sound from input source	• The SOURCE LEVEL and MASTER control knobs are set to MIN. (They should normally be set to MAX.) • The FADER AUDIO button is depressed and the FADER lever is not in the level position.
Color correction has not occurred properly on a edited tape. The color-corrected picture does not appear on the monitor.	The VCR and monitor are not properly connected. (Connect to the PROCESSED OUT jacks.)
The color bar does not appear clearly	Signal is being input from the SOURCE IN jacks. (Turn off the power of the equipment connected to the SOURCE IN jacks.)
Color compensation has not been carried out as desired. The intended background color does not appear on the screen.	A video source without burst signals is input (from a monochrome video camera, etc.)
Desired video art effects do not appear.	WIPE lever is not set to the uppermost position.
Desired wiper effects do not appear.	VIDEO ART control is not set to MAX.

SECTION 2
DISASSEMBLY

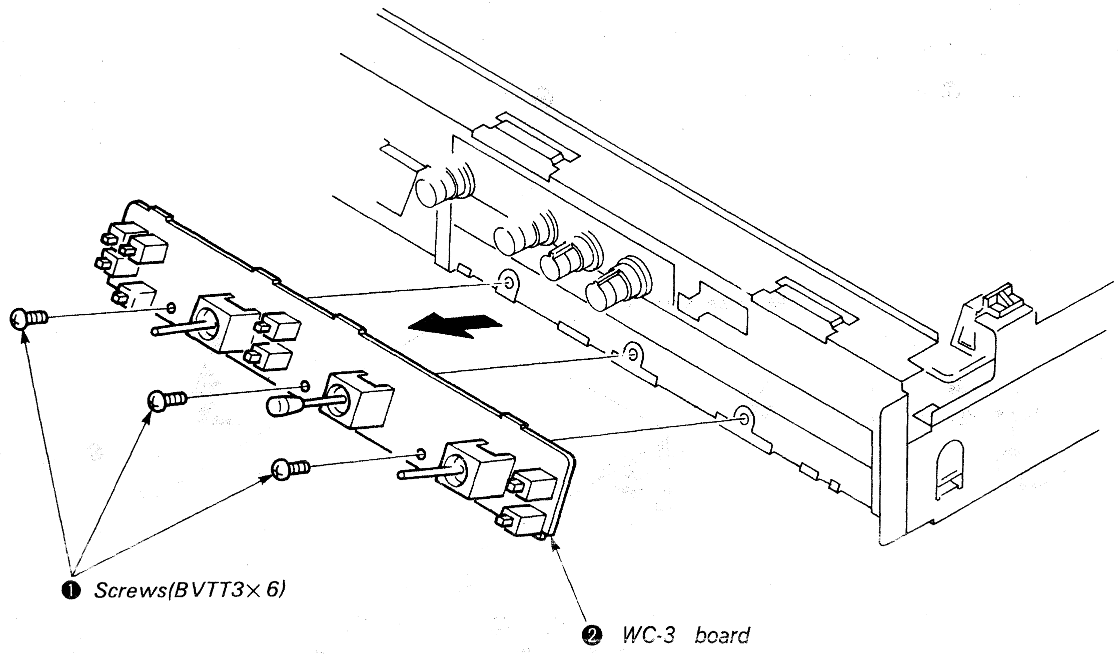
2-1. Front Panel and Upper Case Removal

1) Take out four case screws ❶.
2) Remeve upper case in the direction of the arrow 🅐.
3) Loosen six screws ❸ attached to bottom plate.
4) Remove bottom plate ❹ in the direction of the arrow 🅑.
5) Take two knobs ❺ off the lever shaft.
6) Take out six screws ❻ and ❼.
7) Remove front panel ❽ in the direction of the arrow 🅒.


❶ Case Screws
🅐
❸ Screws (BVTP3× 6)
❷ Upper case
❻ Screws (BVTP3× 6)
❽ Front panel
❶ Case Screws
🅑
🅒
❹ Bottom plate
❺ Knobs(FADER/ WIPE)
❼ Screws(BVTP3× 8)

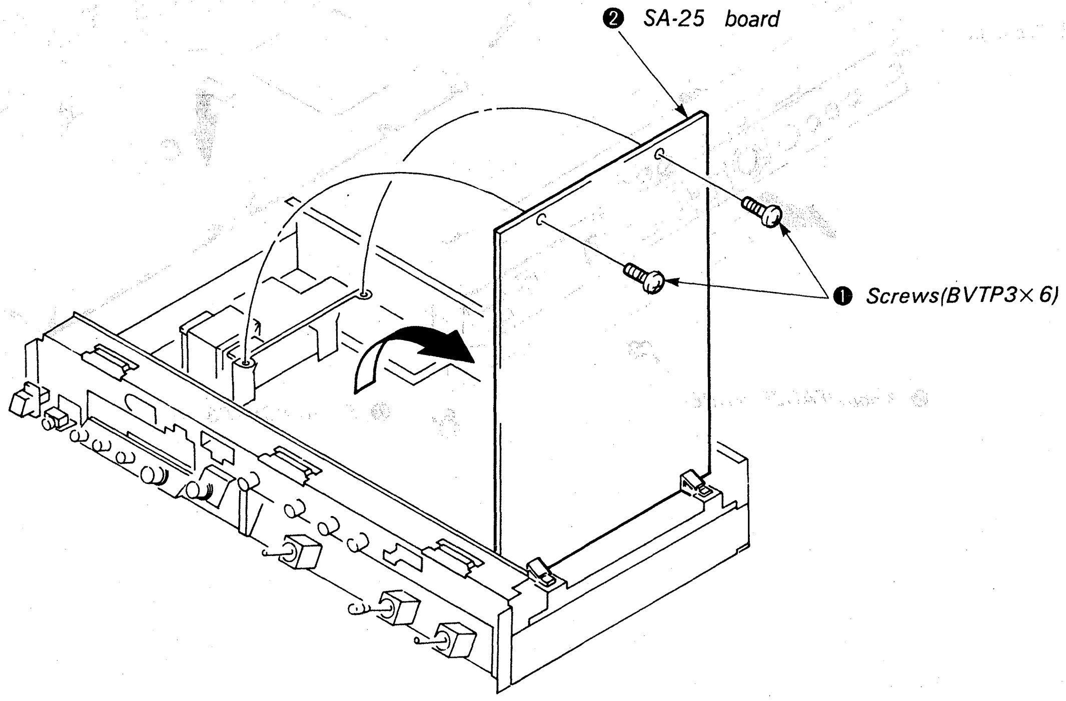
2-2. WC-3 Board Removal

1) Take out three screws ❶.
2) Remove WC-3 board ❷ in the direction of the arrow.


❶ Screws(BVTT3× 6)
❷ WC-3 board

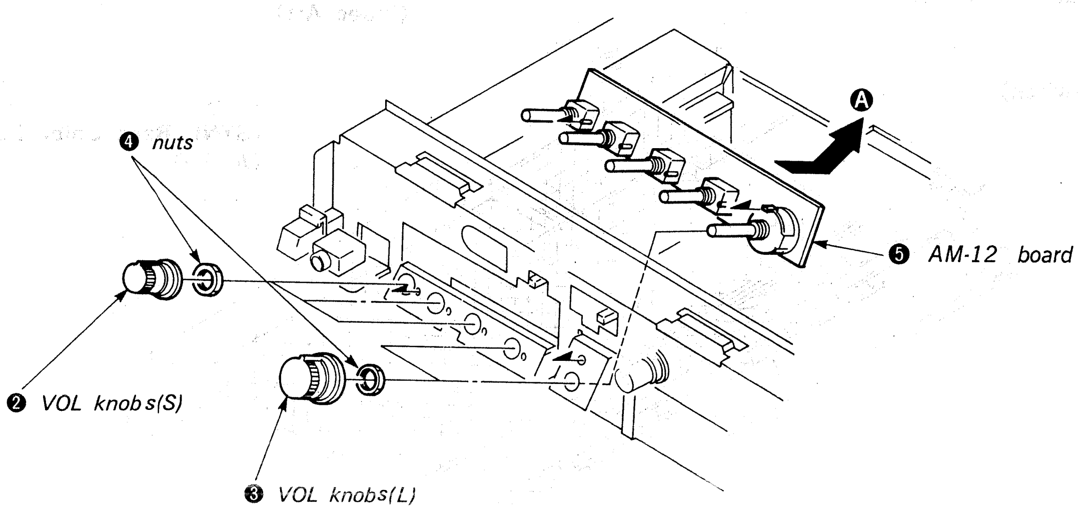
2-3. SA-25 Board Removal

1) Take out two screws ❶.
2) Open SA-25 board ❷ in the direction of the arrow.


❷ SA-25 board
❶ Screws(BVTP3× 6)

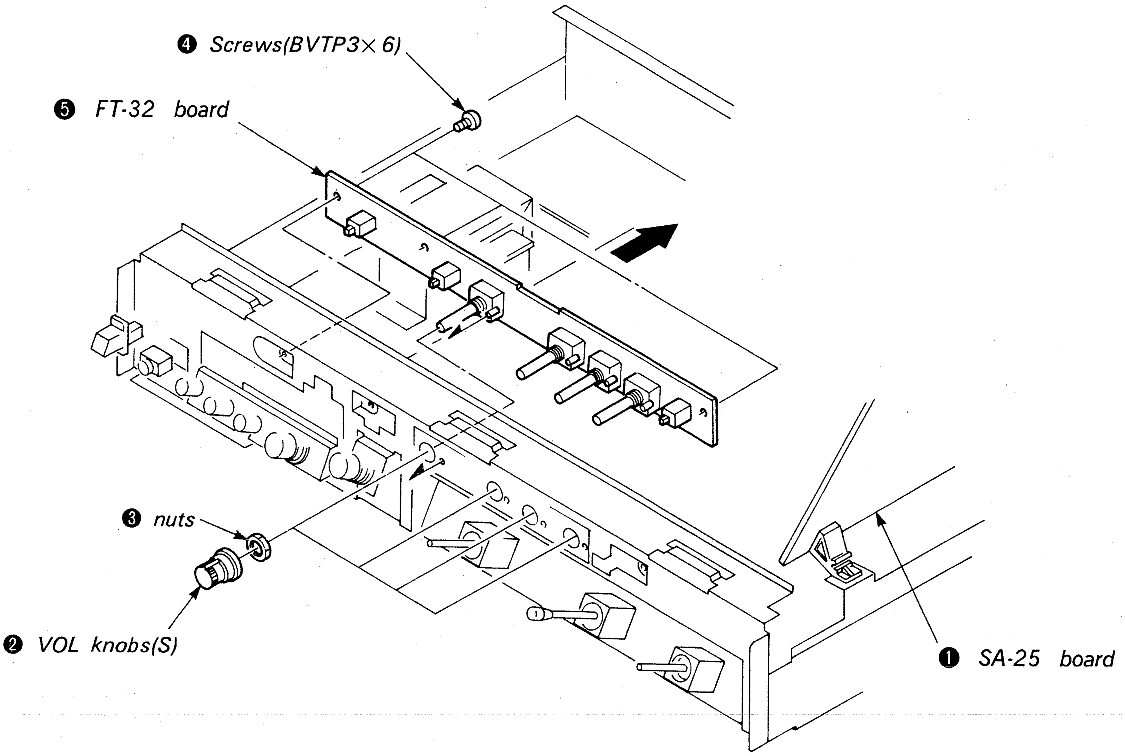
2-4. AM-12 Board Removal

1) Remove SA-25 board with reference to the "2-3, SA-25 board removal".
2) Take three VOL knobs (S) ❷ off.
3) Take two VOL knobs (L) ❸ off.
4) Remove five nuts ❹.
5) Remove AM-12 board ❺ in the direction of the arrow Ⓐ.


Ⓐ
❹ nuts
❺ AM-12 board
❷ VOL knobs(S)
❸ VOL knobs(L)

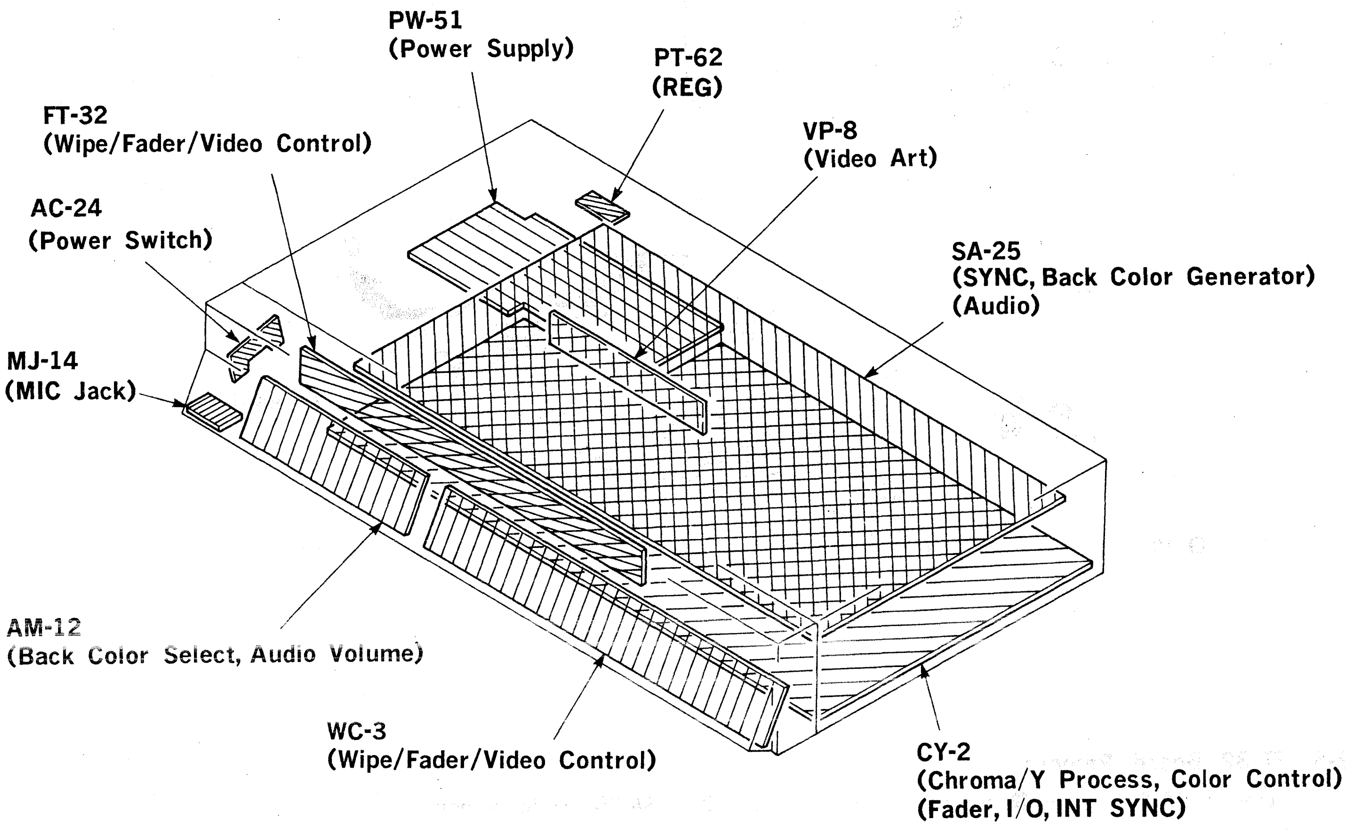
2-5. FT-32 Board Removal

1) Remove SA-25 board ❶ with reference to the "2-3. SA-25 board removal".
2) Take four VOL knobs (S) ❷ off.
3) Remove four nuts ❸.
4) Take out three screws ❹.
5) Remove FT-32 board ❺ in the direction of the arrow.

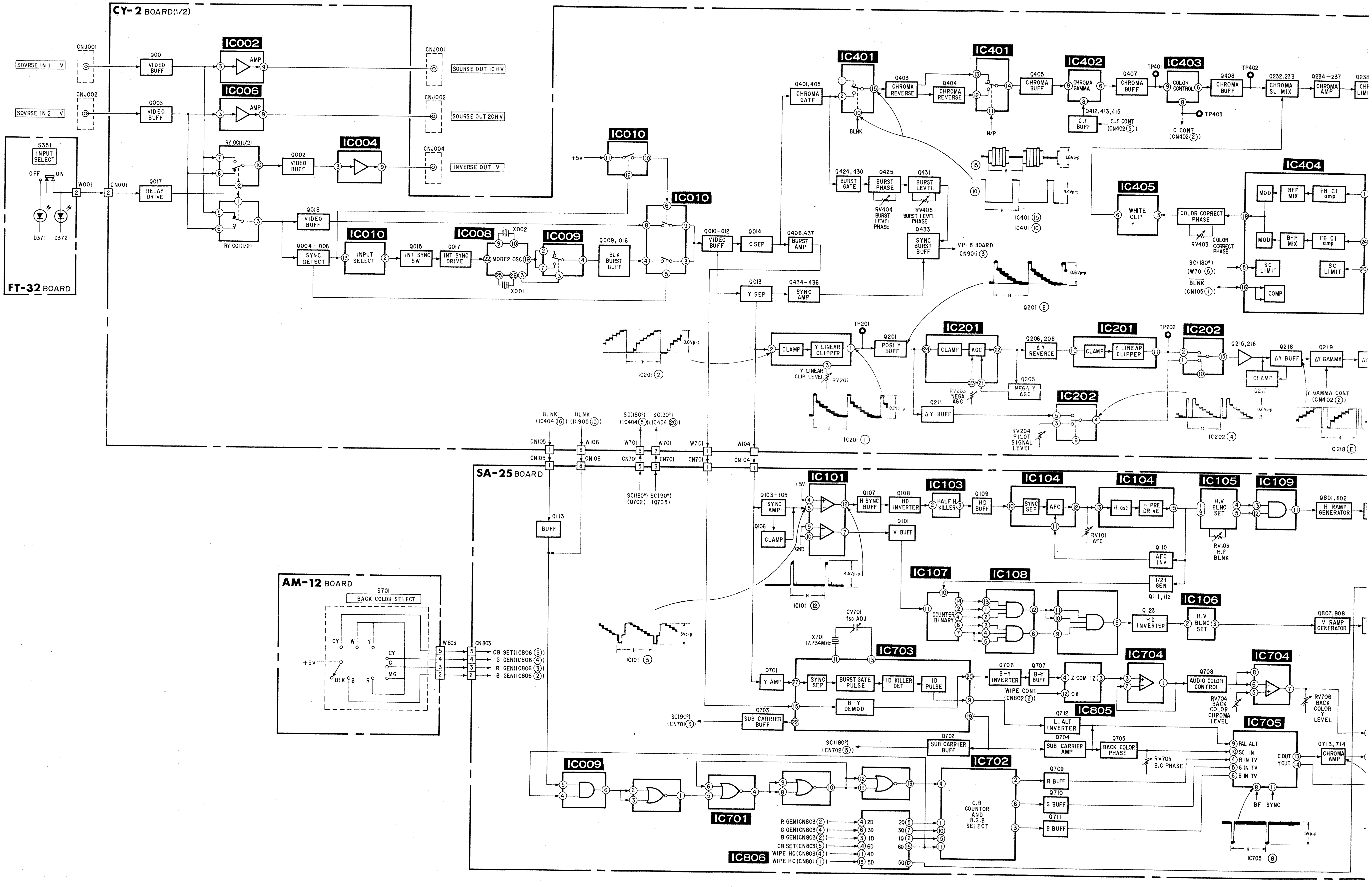

❹ Screws(BVTP3× 6)
❺ FT-32 board
❸ nuts
❷ VOL knobs(S)
❶ SA-25 board

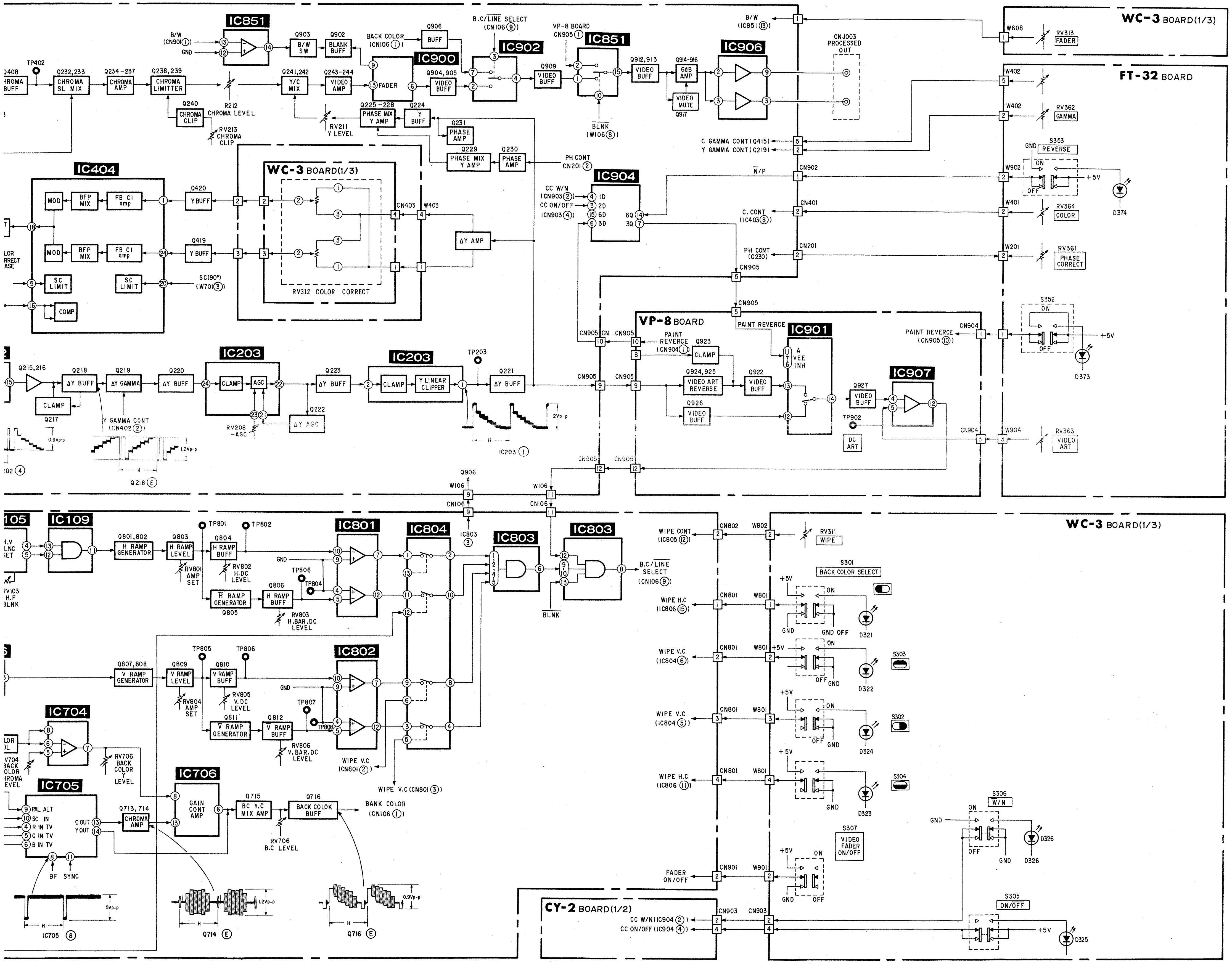
SECTION 3
DIAGRAMS

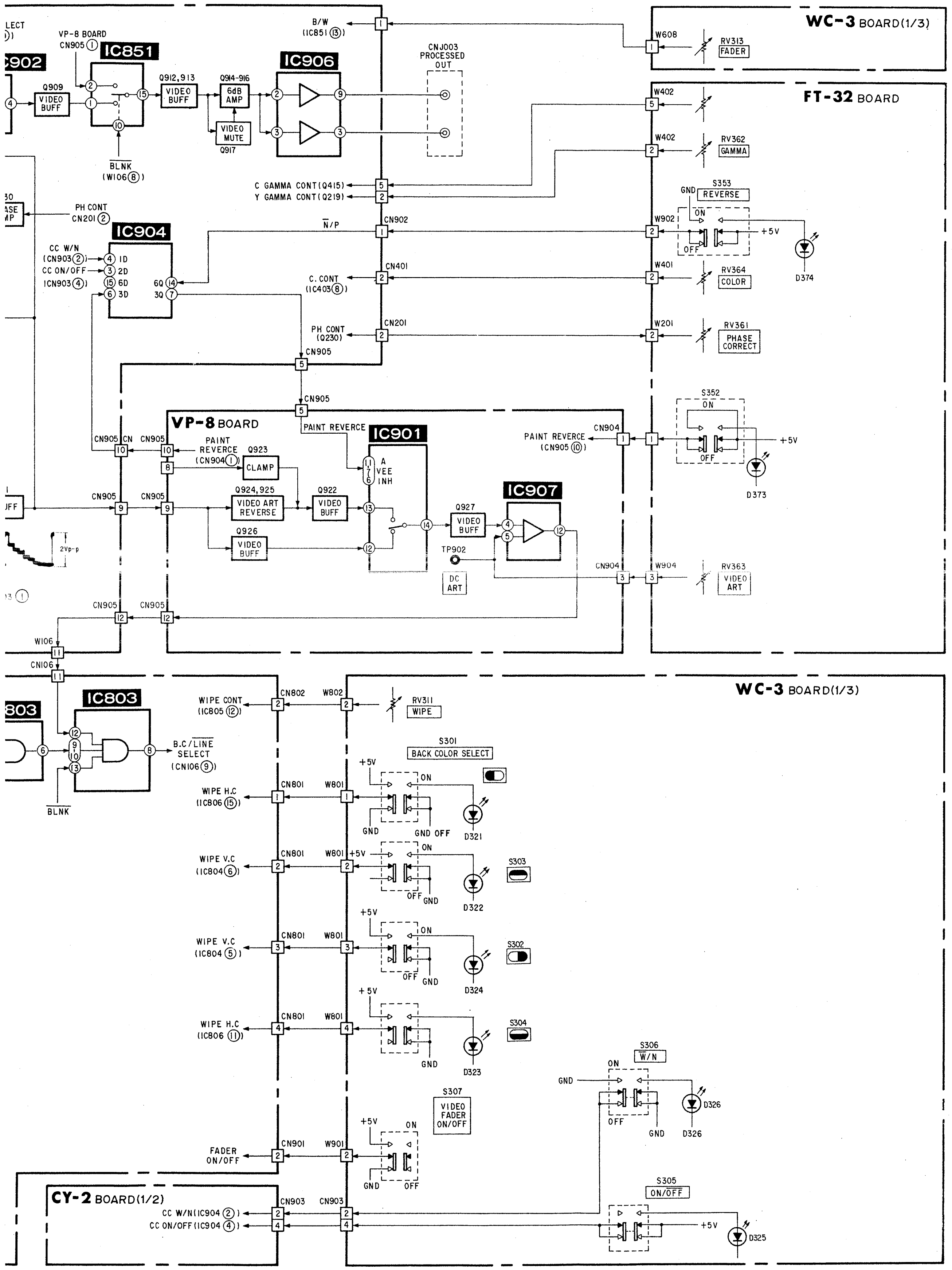
3-1. CIRCUIT BOARDS LOCATION


PW-51
(Power Supply)
PT-62
(REG)
FT-32
(Wipe/Fader/Video Control)
VP-8
(Video Art)
AC-24
(Power Switch)
SA-25
(SYNC, Back Color Generator)
(Audio)
MJ-14
(MIC Jack)
AM-12
(Back Color Select, Audio Volume)
WC-3
(Wipe/Fader/Video Control)
CY-2
(Chroma/Y Process, Color Control)
(Fader, I/O, INT SYNC)

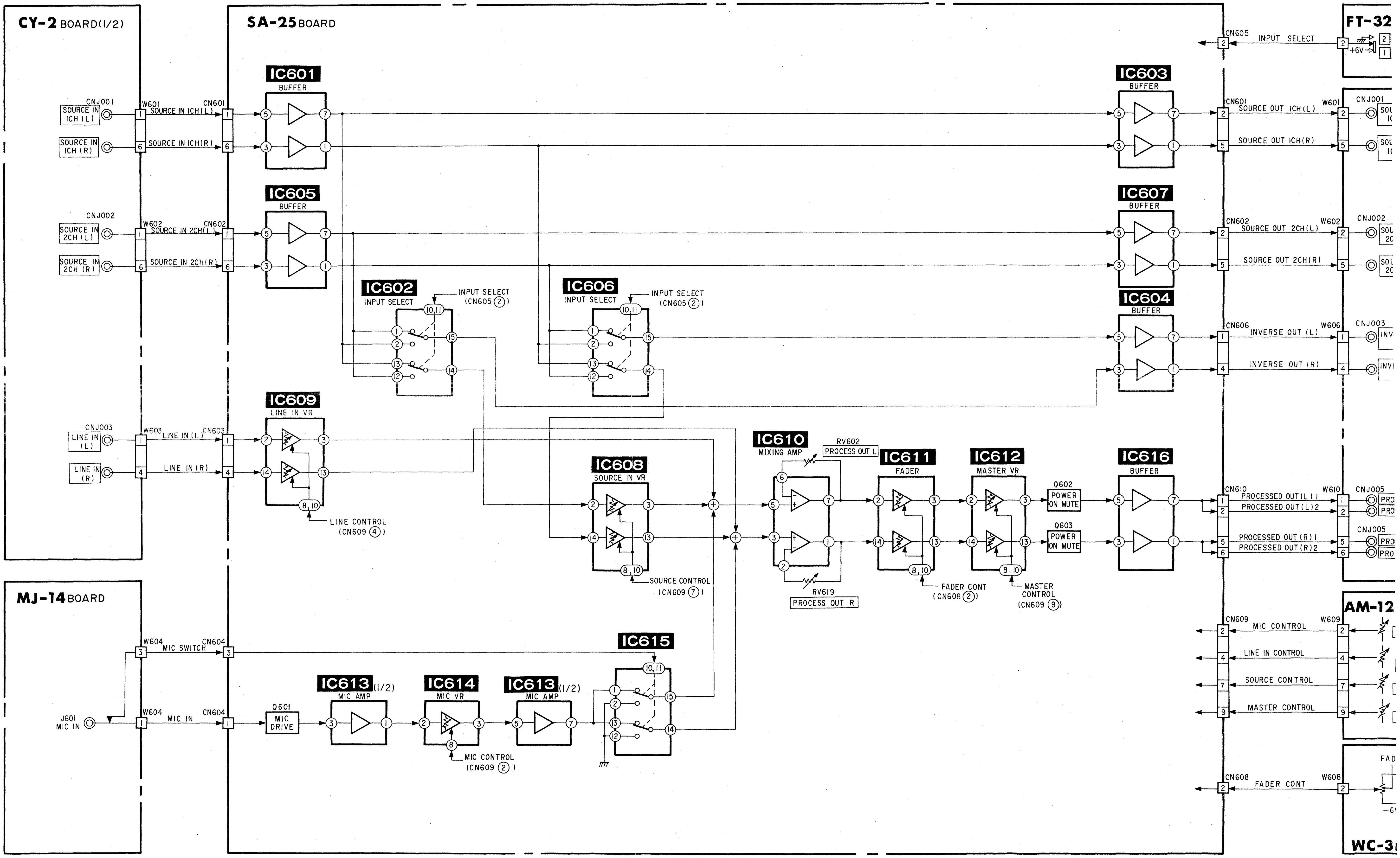
3-2. VIDEO BLOCK DIAGRAM

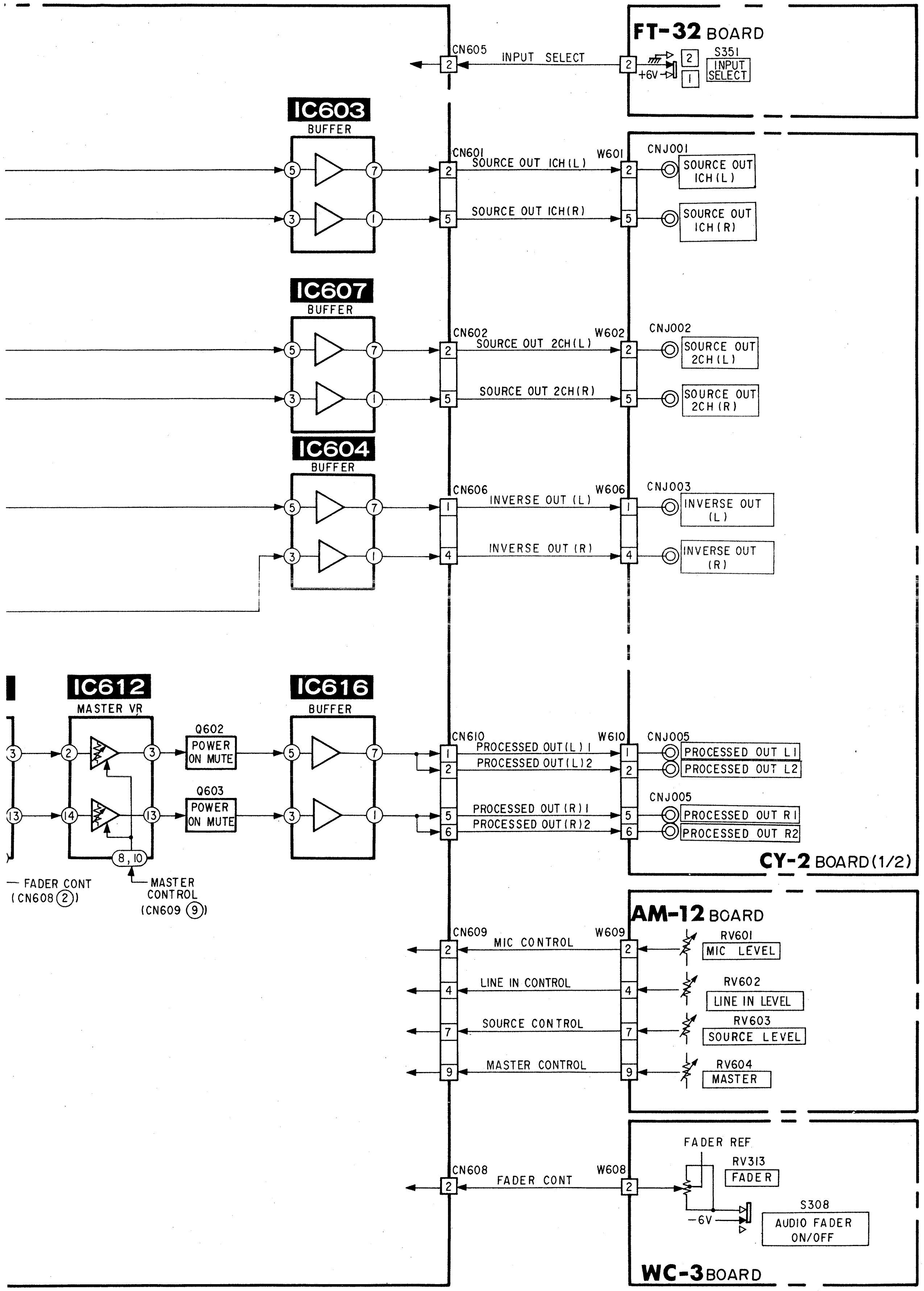

CY-2 BOARD(1/2)
FT-32 BOARD
SA-25 BOARD
AM-12 BOARD
SOVRSE IN 1 V
SOVRSE IN 2 V
CNJ001
CNJ002
CNJ004
SOURSE OUT 1CH V
SOURSE OUT 2CH V
INVERSE OUT V
S351 INPUT SELECT
OFF
ON
D371
D372
W001
CN001
Q001 VIDEO BUFF
Q003 VIDEO BUFF
Q017 RELAY DRIVE
IC002 AMP
IC006 AMP
IC004
RY 001(1/2)
Q002 VIDEO BUFF
Q018 VIDEO BUFF
Q004-006 SYNC DETECT
IC010 INPUT SELECT
Q015 INT SYNC SW
Q017 INT SYNC DRIVE
IC008 MODE2 OSC
X002
X001
IC009
Q009, 016 BLK BURST BUFF
IC010
+5V
Q010-012 VIDEO BUFF
Q014 C SEP
Q406,437 BURST AMP
Q013 Y SEP
Q434-436 SYNC AMP
Q401,405 CHROMA GATF
IC401
BLNK
Q403 CHROMA REVERSE
Q404 CHROMA REVERSE
N/P
Q405 CHROMA BUFF
IC402 CHROMA GAMMA
Q412,413,415 C.r BUFF
C.r CONT (CN402⑤)
Q407 CHROMA BUFF
TP401
IC403 COLOR CONTROL
C CONT (CN402②)
TP403
Q408 CHROMA BUFF
TP402
Q232,233 CHROMA SL MIX
Q234-237 CHROMA AMP
Q424,430 BURST GATE
Q425 BURST PHASE
Q431 BURST LEVEL
RV404 BURST LEVEL PHASE
RV405 BURST LEVEL PHASE
Q433 SYNC BURST BUFF
VP-8 BOARD CN905③
1.6Vp-p
4.4Vp-p
IC401 ⑮
IC401 ⑩
0.6Vp-p
Q201 Ⓔ
IC405 WHITE CLIP
COLOR CORRECT PHASE
RV403 COLOR CORRECT PHASE
IC404
MOD
BFP MIX
FB CI amp
SC LIMIT
COMP
SC(180°) (W701⑤)
BLNK (CN105①)
TP201
IC201 CLAMP Y LINEAR CLIPPER
Y LINEAR CLIP LEVEL
RV201
Q201 POSI Y BUFF
IC201 CLAMP AGC
RV203 NEGA AGC
Q205 NEGA Y AGC
Q206,208 ΔY REVERCE
IC201 CLAMP Y LINEAR CLIPPER
TP202
IC202
Q215,216
Q218 ΔY BUFF
Q219 ΔY GAMMA
CLAMP
Q217
Y GAMMA CONT (CN402②)
Q211 ΔY BUFF
RV204 PILOT SIGNAL LEVEL
IC202
IC201 ②
IC201 ①
IC202 ④
Q218 Ⓔ
BLNK (IC404⑯)
BLNK (IC905⑩)
SC(180°) (IC404⑤)
SC(90°) (IC404⑳)
CN105
W106
CN106
W701
CN701
W104
CN104
SC(180°) (Q702)
SC(90°) (Q703)
Q113 BUFF
Q103-105 SYNC AMP
Q106 CLAMP
GND
IC101
Q107 H SYNC BUFF
Q108 HD INVERTER
Q101 V BUFF
IC103 HALF H KILLER
Q109 HD BUFF
IC104 SYNC SEP AFC
IC104 H osc H PRE DRIVE
RV101 AFC
Q110 AFC INV
1/2H GEN
Q111,112
IC105 H.V BLNC SET
RV103 H.F BLNK
IC109
Q801,802 H RAMP GENERATOR
4.5Vp-p
IC101 ⑫
IC107 COUNTER BINARY
IC108
Q123 HD INVERTER
IC106 H.V BLNC SET
Q807,808 V RAMP GENERATOR
5Vp-p
IC101 ⑤
S701 BACK COLOR SELECT
+5V
CY W Y G MG BLK B R
W803
CN803
CB SET(IC806⑤)
G GEN(IC806④)
R GEN(IC806③)
B GEN(IC806②)
CV701 fsc ADJ
X701 17.734MHz
IC703
Q701 Y AMP
SYNC SEP
BURST GATE PULSE
ID KILLER DET
ID PULSE
B-Y DEMOD
Q703 SUB CARRIER BUFF
SC(90°) (CN701③)
Q706 B-Y INVERTER
Q707 B-Y BUFF
Z COM 1Z
OX
WIPE CONT (CN802②)
IC704
Q708 AUDIO COLOR CONTROL
RV704 BACK COLOR CHROMA LEVEL
IC704
RV706 BACK COLOR Y LEVEL
Q712 L. ALT INVERTER
IC805
Q702 SUB CARRIER BUFF
SC(180°) (CN702⑤)
Q704 SUB CARRIER AMP
Q705 BACK COLOR PHASE
RV705 B.C PHASE
IC705 PAL ALT SC IN R IN TV G IN TV B IN TV C OUT Y OUT
BF SYNC
Q713,714 CHROMA AMP
IC705 ⑧
IC009
IC701
IC702 C.B COUNTOR AND R.G.B SELECT
Q709 R BUFF
Q710 G BUFF
Q711 B BUFF
IC806
R GEN(CN803②)
G GEN(CN803④)
B GEN(CN803③)
CB SET(CN803⑤)
WIPE HC(CN803④)
WIPE HC(CN801①)
2D 3D 1D 6D 4D 5D
2Q 3Q 1Q 6Q 5Q


IC851
IC900
IC902
IC906
IC404
WC-3 BOARD(1/3)
IC904
IC203
VP-8 BOARD
IC901
IC907
FT-32 BOARD
IC109
IC801
IC804
IC803
IC802
IC704
IC705
IC706
CY-2 BOARD(1/2)
CHROMA SL MIX
CHROMA AMP
CHROMA LIMITTER
CHROMA CLIP
R212 CHROMA LEVEL
RV213 CHROMA CLIP
Y/C MIX
VIDEO AMP
FADER
VIDEO BUFF
B/W SW
BLANK BUFF
BACK COLOR (CN106 ①)
BUFF
B.C/LINE SELECT (CN106 ⑨)
VP-8 BOARD CN905 ①
PHASE MIX Y AMP
Y BUFF
PHASE AMP
RV211 Y LEVEL
PH CONT CN201 ②
6dB AMP
VIDEO MUTE
CNJ003 PROCESSED OUT
BLNK (W106 ⑧)
B/W (IC851 ⑬)
C GAMMA CONT (Q415)
Y GAMMA CONT (Q219)
N/P
C. CONT (IC403 ⑧)
PH CONT (Q230)
CC W/N (CN903 ②)
CC ON/OFF
MOD
BFP MIX
FB CI amp
SC LIMIT
COMP
Y BUFF
ΔY AMP
RV312 COLOR CORRECT
SC(90°) (W701 ③)
ΔY BUFF
ΔY GAMMA
CLAMP
AGC
ΔY AGC
RV208 AGC
Y LINEAR CLIPPER
Y GAMMA CONT (CN402 ②)
PAINT REVERCE (CN904 ①)
VIDEO ART REVERSE
PAINT REVERCE
A VEE INH
DC ART
PAINT REVERCE (CN905 ⑩)
W608 RV313 FADER
RV362 GAMMA
S353 REVERSE
RV364 COLOR
RV361 PHASE CORRECT
S352
RV363 VIDEO ART
D374
D373
+5V
ON
OFF
GND
H RAMP GENERATOR
H RAMP LEVEL
H RAMP BUFF
RV801 AMP SET
RV802 H.DC LEVEL
RV803 H.BAR.DC LEVEL
V RAMP GENERATOR
V RAMP LEVEL
V RAMP BUFF
RV804 AMP SET
RV805 V.DC LEVEL
RV806 V.BAR.DC LEVEL
WIPE V.C (CN801 ②)
WIPE V.C (CN801 ③)
B.C/LINE SELECT (CN106 ⑨)
BLNK
WIPE CONT (IC805 ⑫)
RV311 WIPE
S301 BACK COLOR SELECT
WIPE H.C (IC806 ⑮)
WIPE V.C (IC804 ⑥)
WIPE V.C (IC804 ⑤)
WIPE H.C (IC806 ⑪)
FADER ON/OFF
S307 VIDEO FADER ON/OFF
S306 W/N
S305 ON/OFF
S302
S303
S304
D321
D322
D324
D323
D326
D325
CC W/N (IC904 ②)
CC ON/OFF (IC904 ④)
RV706 BACK COLOR Y LEVEL
GAIN CONT AMP
CHROMA AMP
BC Y.C MIX AMP
BACK COLOK BUFF
RV706 B.C LEVEL
BANK COLOR (CN106 ①)
PAL ALT
SC IN
R IN TV
G IN TV
B IN TV
C OUT
Y OUT
BF
SYNC
IC705 ⑧
Q714 Ⓔ
Q716 Ⓔ
Q218 Ⓔ
IC203 ①
2Vp-p
1.2Vp-p
0.9Vp-p
5Vp-p
0.6Vp-p

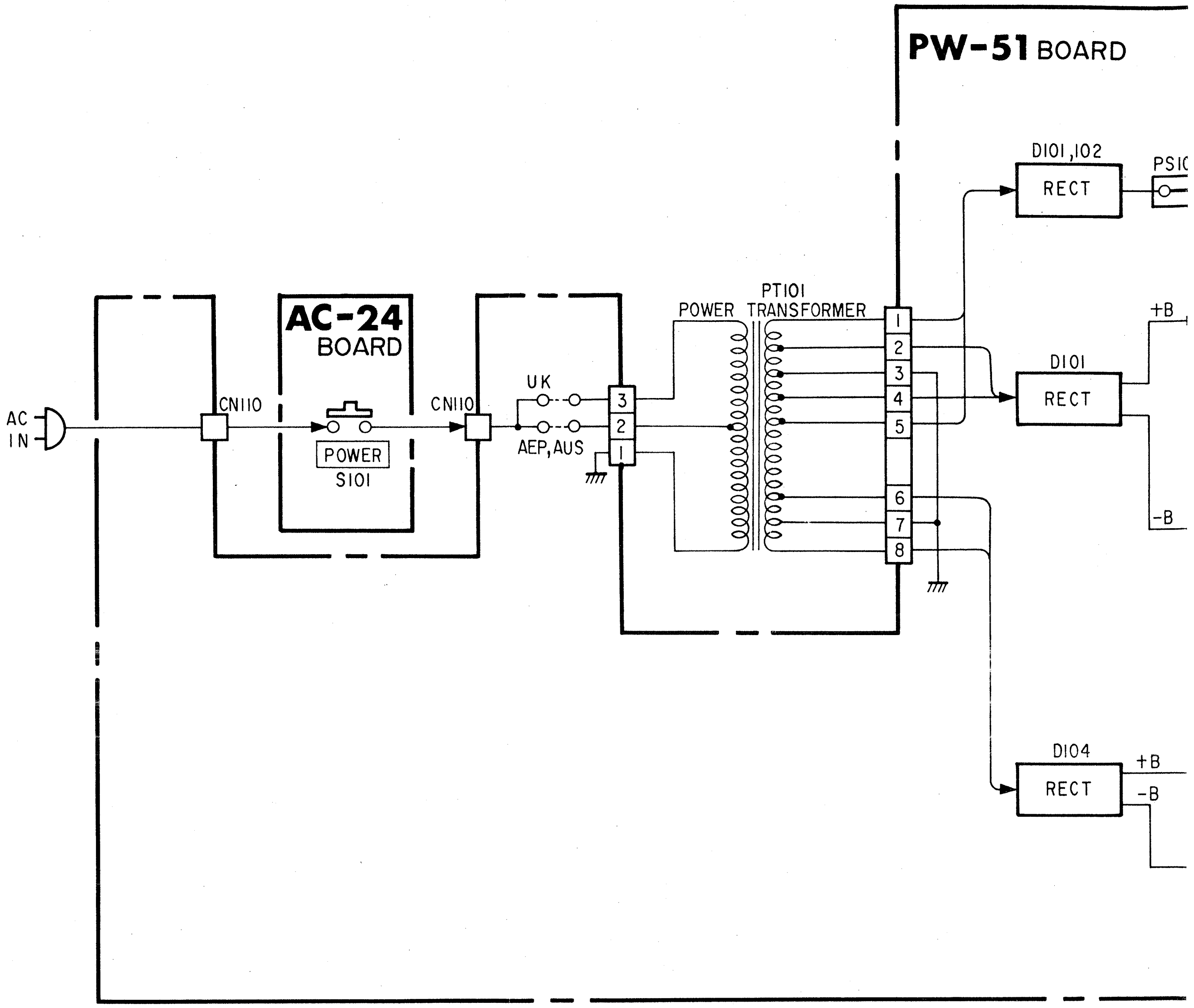

WC-3 BOARD(1/3)
W608
RV313
FADER
FT-32 BOARD
W402
RV362
GAMMA
S353
REVERSE
GND
ON
OFF
W902
+5V
D374
W401
RV364
COLOR
W201
RV361
PHASE CORRECT
S352
D373
W904
RV363
VIDEO ART
B/W
(IC851 ⑬)
CNJ003
PROCESSED OUT
IC851
VP-8 BOARD
CN905 ①
IC906
Q909
VIDEO BUFF
Q912,913
Q914-916
6dB AMP
VIDEO MUTE
Q917
BLNK
(W106 ⑧)
C GAMMA CONT(Q415)
Y GAMMA CONT(Q219)
PH CONT
CN201 ②
IC904
CC W/N
(CN903 ②)
CC ON/OFF
(CN903 ④)
1D
2D
6D
3D
6Q
3Q
N/P
CN902
C. CONT
(IC403 ⑧)
CN401
PH CONT
(Q230)
CN201
CN905
VP-8 BOARD
PAINT REVERCE
IC901
A
VEE
INH
PAINT REVERCE
(CN905 ⑩)
CN904
PAINT
REVERCE
(CN904 ①)
Q923
CLAMP
Q924,925
VIDEO ART REVERSE
Q922
VIDEO BUFF
Q926
VIDEO BUFF
IC907
Q927
VIDEO BUFF
TP902
DC ART
2Vp-p
W106
CN106
WC-3 BOARD(1/3)
IC803
CN802
W802
WIPE CONT
(IC805 ⑫)
RV311
WIPE
B.C/LINE
SELECT
(CN106 ⑨)
BLNK
S301
BACK COLOR SELECT
CN801
W801
WIPE H.C
(IC806 ⑮)
D321
GND OFF
WIPE V.C
(IC804 ⑥)
S303
D322
WIPE V.C
(IC804 ⑤)
S302
D324
WIPE H.C
(IC806 ⑪)
S304
D323
S306
W/N
D326
S307
VIDEO FADER ON/OFF
CN901
W901
FADER
ON/OFF
CY-2 BOARD(1/2)
CN903
CC W/N(IC904 ②)
CC ON/OFF(IC904 ④)
S305
ON/OFF
D325

3-3. AUDIO BLOCK DIAGRAM

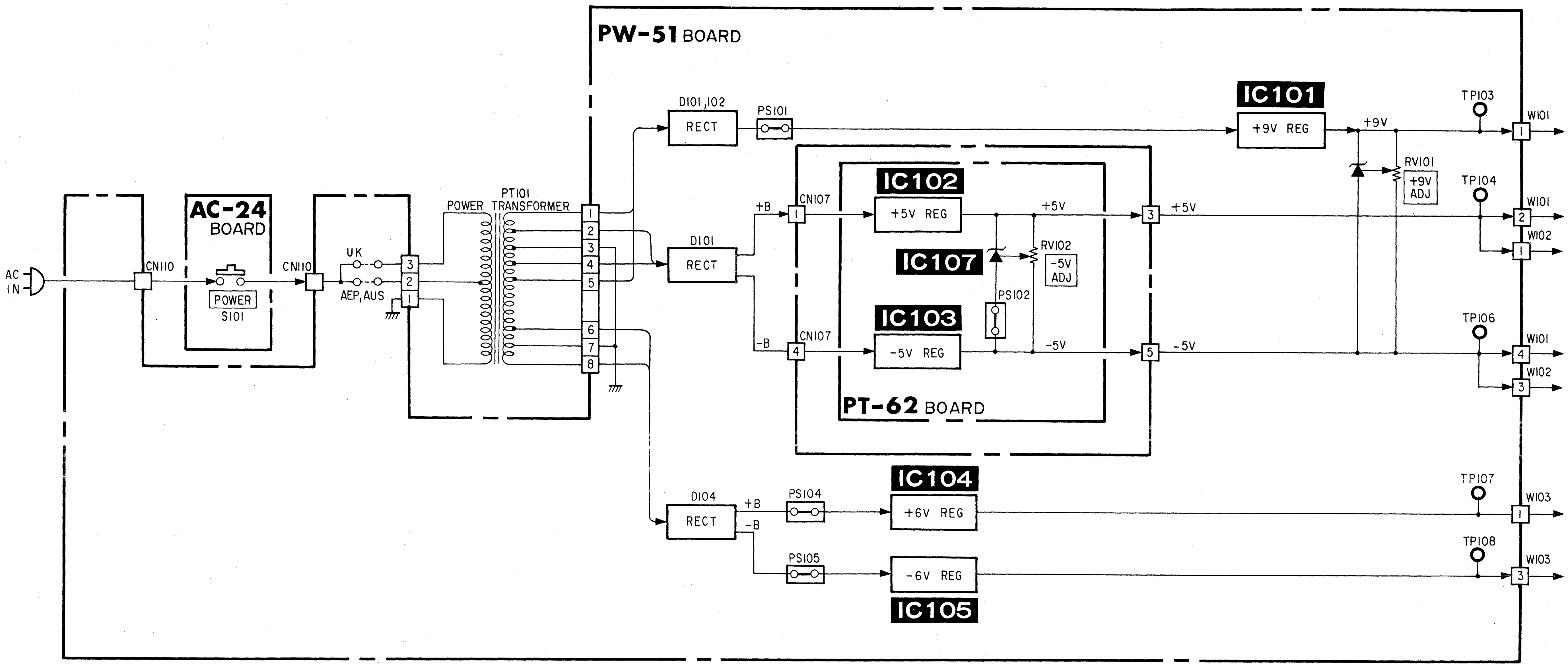

CY-2 BOARD(1/2)
SA-25 BOARD
MJ-14 BOARD
FT-32
AM-12
WC-3
CNJ001
SOURCE IN 1CH (L)
SOURCE IN 1CH (R)
CNJ002
SOURCE IN 2CH (L)
SOURCE IN 2CH (R)
CNJ003
LINE IN (L)
LINE IN (R)
J601 MIC IN
W601
W602
W603
W604
CN601
CN602
CN603
CN604
SOURCE IN 1CH(L)
SOURCE IN 1CH(R)
SOURCE IN 2CH(L)
SOURCE IN 2CH(R)
LINE IN (L)
LINE IN (R)
MIC SWITCH
MIC IN
IC601 BUFFER
IC605 BUFFER
IC602 INPUT SELECT
INPUT SELECT (CN605 ②)
IC606 INPUT SELECT
INPUT SELECT (CN605 ②)
IC609 LINE IN VR
LINE CONTROL (CN609 ④)
IC608 SOURCE IN VR
SOURCE CONTROL (CN609 ⑦)
IC610 MIXING AMP
RV602
PROCESS OUT L
RV619
PROCESS OUT R
IC611 FADER
FADER CONT (CN608 ②)
IC612 MASTER VR
MASTER CONTROL (CN609 ⑨)
Q602 POWER ON MUTE
Q603 POWER ON MUTE
IC616 BUFFER
IC603 BUFFER
IC607 BUFFER
IC604 BUFFER
Q601 MIC DRIVE
IC613 (1/2) MIC AMP
IC614 MIC VR
MIC CONTROL (CN609 ②)
IC613 (1/2) MIC AMP
IC615
CN605 INPUT SELECT
+6V
CN601 SOURCE OUT 1CH(L)
SOURCE OUT 1CH(R)
CN602 SOURCE OUT 2CH(L)
SOURCE OUT 2CH(R)
CN606 INVERSE OUT (L)
INVERSE OUT (R)
CN610 PROCESSED OUT(L)1
PROCESSED OUT(L)2
PROCESSED OUT(R)1
PROCESSED OUT(R)2
W601
W602
W606
W610
CNJ001
CNJ002
CNJ003
CNJ005
CN609 MIC CONTROL
LINE IN CONTROL
SOURCE CONTROL
MASTER CONTROL
W609
CN608 FADER CONT
W608
FAD
-6V


FT-32 BOARD
CN605
INPUT SELECT
S351
INPUT SELECT
+6V
IC603
BUFFER
CN601
SOURCE OUT 1CH(L)
SOURCE OUT 1CH(R)
W601
CNJ001
SOURCE OUT 1CH(L)
SOURCE OUT 1CH(R)
IC607
BUFFER
CN602
SOURCE OUT 2CH(L)
SOURCE OUT 2CH(R)
W602
CNJ002
SOURCE OUT 2CH(L)
SOURCE OUT 2CH(R)
IC604
BUFFER
CN606
INVERSE OUT (L)
INVERSE OUT (R)
W606
CNJ003
INVERSE OUT (L)
INVERSE OUT (R)
IC612
MASTER VR
Q602
POWER ON MUTE
Q603
POWER ON MUTE
IC616
BUFFER
8,10
FADER CONT (CN608②)
MASTER CONTROL (CN609 ⑨)
CN610
PROCESSED OUT(L)1
PROCESSED OUT(L)2
PROCESSED OUT(R)1
PROCESSED OUT(R)2
W610
CNJ005
PROCESSED OUT L1
PROCESSED OUT L2
CNJ005
PROCESSED OUT R1
PROCESSED OUT R2
CY-2 BOARD(1/2)
AM-12 BOARD
CN609
MIC CONTROL
LINE IN CONTROL
SOURCE CONTROL
MASTER CONTROL
W609
RV601
MIC LEVEL
RV602
LINE IN LEVEL
RV603
SOURCE LEVEL
RV604
MASTER
CN608
FADER CONT
W608
FADER REF
RV313
FADER
S308
AUDIO FADER ON/OFF
−6V
WC-3 BOARD

3-4. POWER BLOCK DIAGRAM

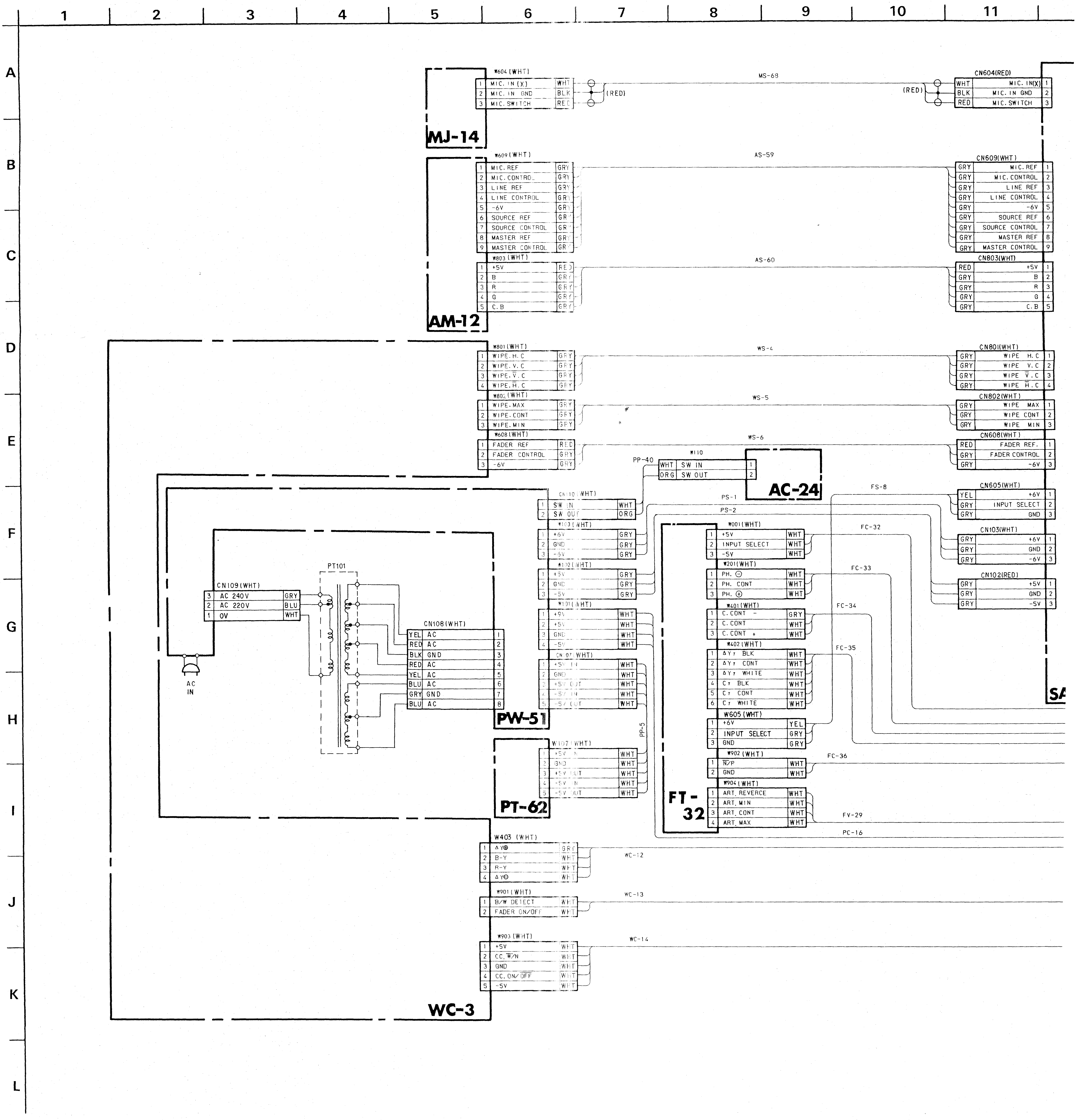

PW-51 BOARD
AC IN
AC-24 BOARD
CN110
POWER
S101
CN110
UK
AEP, AUS
PT101
POWER TRANSFORMER
D101,102
RECT
PS10
D101
RECT
+B
-B
D104
RECT
+B
-B

3-4. POWER BLOCK DIAGRAM

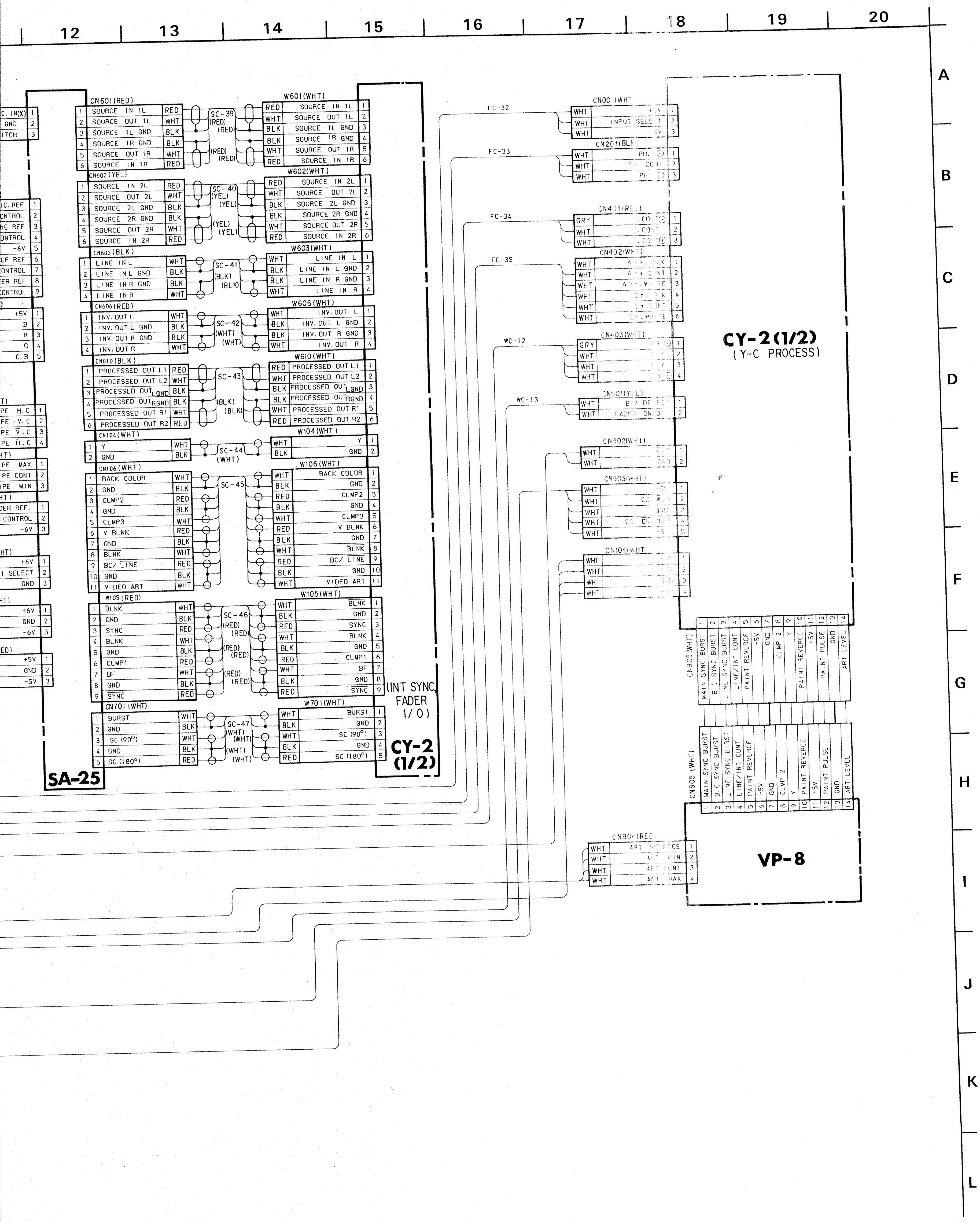

PW-51 BOARD
AC-24 BOARD
PT-62 BOARD
AC IN
CN110
POWER S101
CN110
UK
AEP, AUS
PT101 POWER TRANSFORMER
D101,102 RECT
PS101
D101 RECT
D104 RECT
+B
-B
PS104
PS105
IC101 +9V REG
IC102 +5V REG
IC107
IC103 -5V REG
IC104 +6V REG
IC105 -6V REG
CN107
PS102
RV102 -5V ADJ
RV101 +9V ADJ
+9V
+5V
-5V
TP103
TP104
TP106
TP107
TP108
W101
W102
W103

SECTION 4
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAM

4-1. FRAME SCHEMATIC DIAGRAM



1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
MJ-14
W604 (WHT)
MIC. IN (X)
MIC. IN GND
MIC. SWITCH
WHT
BLK
RED
(RED)
MS-68
CN604(RED)
AM-12
W609 (WHT)
MIC. REF
MIC. CONTROL
LINE REF
LINE CONTROL
-6V
SOURCE REF
SOURCE CONTROL
MASTER REF
MASTER CONTROL
GRY
AS-59
CN609(WHT)
W803 (WHT)
+5V
B
R
G
C.B
AS-60
CN803(WHT)
W801 (WHT)
WIPE. H. C
WIPE. V. C
WS-4
CN801(WHT)
W802 (WHT)
WIPE. MAX
WIPE. CONT
WIPE. MIN
WS-5
CN802(WHT)
W608 (WHT)
FADER REF
FADER CONTROL
WS-6
CN608(WHT)
PP-40
W110
SW IN
SW OUT
ORG
AC-24
FS-8
CN605(WHT)
YEL
INPUT SELECT
GND
PS-1
PS-2
CN110 (WHT)
W103 (WHT)
W102 (WHT)
W101 (WHT)
CN107 (WHT)
+5V IN
+5V OUT
-5V IN
-5V OUT
FC-32
CN103(WHT)
CN102(RED)
W001 (WHT)
W201 (WHT)
PH. ⊖
PH. CONT
PH. ⊕
FC-33
FC-34
W401 (WHT)
C. CONT -
C. CONT
C. CONT +
FC-35
W402 (WHT)
ΔYr BLK
ΔYr CONT
ΔYr WHITE
Cr BLK
Cr CONT
Cr WHITE
W605 (WHT)
+6V
W902 (WHT)
N/P
FC-36
W904 (WHT)
ART. REVERCE
ART. MIN
ART. CONT
ART. MAX
FV-29
PC-16
FT-32
PT101
CN109 (WHT)
AC 240V
AC 220V
0V
BLU
CN108(WHT)
AC
AC IN
PW-51
PP-5
W107 (WHT)
PT-62
W403 (WHT)
ΔY⊕
B-Y
R-Y
ΔY⊖
WC-12
W901 (WHT)
B/W DETECT
FADER ON/OFF
WC-13
W903 (WHT)
CC. W/N
CC. ON/OFF
-5V
WC-14
WC-3
SA



12
13
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16
17
18
19
20
A
B
C
D
E
F
G
H
I
J
K
L
SA-25
CY-2 (1/2)
(INT SYNC, FADER 1/0)
CY-2 (1/2)
(Y-C PROCESS)
VP-8
CN601 (RED)
SOURCE IN 1L
SOURCE OUT 1L
SOURCE 1L GND
SOURCE 1R GND
SOURCE OUT 1R
SOURCE IN 1R
SC-39 (RED)
W601 (WHT)
CN602 (YEL)
SOURCE IN 2L
SOURCE OUT 2L
SOURCE 2L GND
SOURCE 2R GND
SOURCE OUT 2R
SOURCE IN 2R
SC-40 (YEL)
W602 (WHT)
CN603 (BLK)
LINE IN L
LINE IN L GND
LINE IN R GND
LINE IN R
SC-41 (BLK)
W603 (WHT)
CN606 (RED)
INV. OUT L
INV. OUT L GND
INV. OUT R GND
INV. OUT R
SC-42 (WHT)
W606 (WHT)
CN610 (BLK)
PROCESSED OUT L1
PROCESSED OUT L2
PROCESSED OUT L GND
PROCESSED OUT R GND
PROCESSED OUT R1
PROCESSED OUT R2
SC-43 (BLK)
W610 (WHT)
CN104 (WHT)
Y
GND
SC-44 (WHT)
W104 (WHT)
CN106 (WHT)
BACK COLOR
GND
CLMP2
CLMP3
V BLNK
BLNK
BC/ LINE
VIDEO ART
SC-45
W106 (WHT)
W105 (RED)
BLNK
SYNC
CLMP1
BF
SC-46 (RED)
W105 (WHT)
CN701 (WHT)
BURST
SC (90°)
SC (180°)
SC-47 (WHT)
W701 (WHT)
FC-32
FC-33
FC-34
FC-35
WC-12
WC-13
CN001 (WHT)
INPUT SELECT
CN201 (BLK)
CN401 (RED)
CN402 (WHT)
CN403 (WHT)
CN901 (YEL)
FADER ON
CN902 (WHT)
CN903 (WHT)
CN101 (WHT)
CN905 (WHT)
MAIN SYNC BURST
B.C SYNC BURST
LINE SYNC BURST
LINE/INT CONT
PAINT REVERCE
-5V
GND
CLMP 2
Y
PAINT REVERCE
+5V
PAINT PULSE
GND
ART LEVEL
CN904 (RED)
ART REVERCE
ART MIN
ART CENT
ART MAX
WHT
BLK
RED
GRY

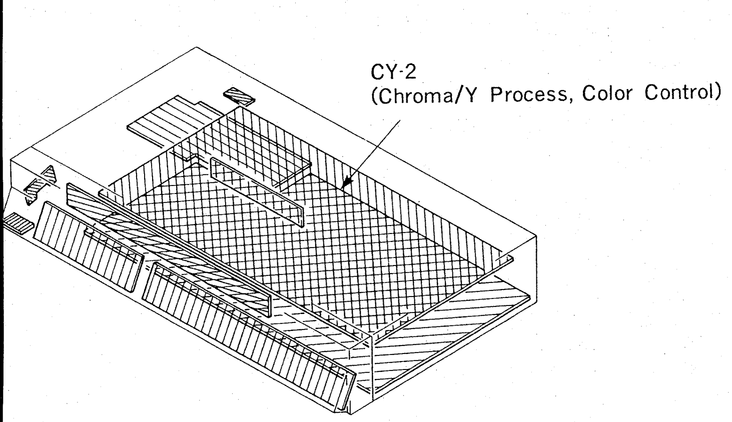
FRAME

4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAM

Note:

- ○— : indicates a lead wire mounted on the component side.
- ●— : indicates a lead wire mounted on the printed side.
- ▨ : soldering side.

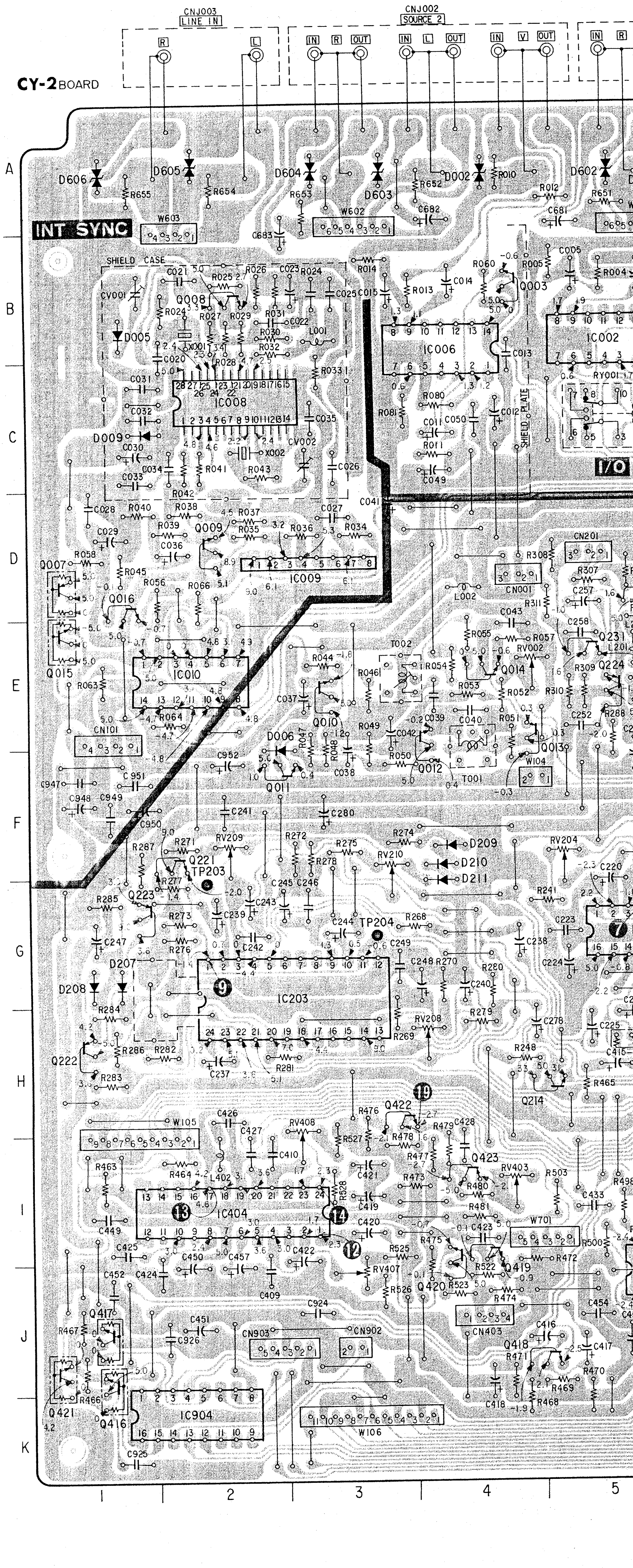
When indicating parts by reference number, please include the board name.



CN001	D-4
CN101	E-1
CN201	D-5
CN401	I-7
CN402	J-11
CN403	J-4
CN901	F-15
CN902	J-3
CN903	J-2
CN905	D-12
CNJ001	A-6
CNJ002	A-4
CNJ003	A-2
CNJ004	A-8
CNJ005	A-10
CV001	B-1
CV002	C-3
D001	A-6
D002	A-4
D003	A-8
D004	B-8
D005	B-1
D006	E-2
D007	A-9
D008	B-6
D009	C-1
D201	H-9
D202	H-9
D203	G-11
D204	G-11
D205	G-11
D206	G-11
D207	G-1
D208	G-1
D209	F-4
D210	F-4
D211	F-4
D601	A-5
D602	A-5
D603	A-3
D604	A-3
D605	A-2
D606	A-1
D607	A-8
D608	A-7
D609	A-10
D610	A-9
D851	F-15
D852	F-15
D853	F-13
D854	E-14
D855	
D856	E-13
D857	E-14
D901	A-11
D902	B-9
D932	C-11
IC002	B-5
IC004	B-7
IC006	B-4
IC008	C-2
IC009	D-3
IC010	E-2
IC201	G-8
IC202	G-5
IC203	G-2
IC401	J-15
IC402	J-9
IC403	J-8
IC404	I-2
IC405	J-6
IC851	E-14
IC900	G-14
IC902	E-11
IC904	K-2
IC905	C-11
IC906	B-11
Q001	B-6
Q002	C-7
Q003	B-4
Q004	B-8
Q005	B-8
Q006	A-9
Q007	D-1
Q008	B-2
Q009	D-2
Q010	E-3
Q011	F-2
Q012	F-4
Q013	E-4
Q014	E-4
Q015	E-1
Q016	D-1
Q017	B-6
Q018	C-8
Q201	F-7
Q205	H-10
Q206	H-10
Q208	G-9
Q210	G-6
Q211	H-7
Q212	F-6
Q213	H-5
Q214	H-4
Q215	H-10
Q216	H-10
Q217	H-10
Q218	H-11
Q219	H-11
Q220	H-11
Q221	F-2
Q222	H-1
Q223	G-1
Q224	E-5
Q225	D-6
Q226	E-6
Q227	D-6
Q228	E-6
Q229	E-5
Q230	D-5
Q231	E-5
Q232	D-9
Q233	E-9
Q234	F-9
Q235	E-9
Q236	E-8
Q237	E-8
Q238	D-8
Q239	D-7
Q240	D-8
Q241	E-7
Q242	E-7
Q243	E-7
Q244	D-7
Q401	I-15
Q402	I-15
Q403	J-15
Q404	J-14
Q405	J-13
Q406	H-14
Q407	I-10
Q408	I-8
Q409	J-11
Q410	I-11
Q411	J-11
Q412	J-10
Q413	J-9
Q414	J-9
Q415	J-8
Q416	K-1
Q417	J-1
Q418	J-4
Q419	J-4
Q420	J-4
Q421	K-1
Q422	H-3
Q423	I-4
Q424	I-14
Q425	I-13
Q426	I-7
Q427	J-6
Q428	J-7
Q429	I-6
Q430	I-14
Q431	I-13
Q432	J-13
Q433	J-12
Q434	J-12
Q435	I-12
Q436	I-13
Q437	H-15
Q439	J-7
Q900	G-15
Q901	F-15
Q902	G-13
Q903	F-12
Q904	E-12
Q905	F-12
Q906	F-12
Q907	F-12
Q908	G-12
Q909	D-10
Q910	D-11
Q911	D-11
Q912	B-11
Q913	C-10
Q914	C-9
Q915	C-10
Q916	B-9
Q917	B-10
RV002	E-4
RV201	G-10
RV202	F-9
RV203	H-10
RV204	F-5
RV205	H-6
RV206	F-10
RV207	G-11
RV208	H-4
RV209	F-2
RV210	F-3
RV211	E-6
RV212	D-7
RV213	E-8
RV214	F-10
RV402	I-7
RV403	I-4
RV404	I-13
RV405	J-13
RV406	J-12
RV407	J-3
RV408	H-3
RV409	I-6
RV851	F-14
RV900	E-12
TP201	F-7
TP202	F-5
TP203	F-2
TP204	G-3
TP401	I-10
TP402	I-8
TP403	J-8
TP404	I-11
TP851	F-13
TP901	E-12
W104	F-4
W105	H-2
W106	K-3
W601	A-5
W602	A-3
W603	A-2
W606	A-7
W610	B-10
W701	I-4

CY-2 (CHROMA/Y PROCESS, COLOR CONTROL) PRINTED WIRING BOARD

—Ref. No. CY-2 BOARD : 1, 000 series—



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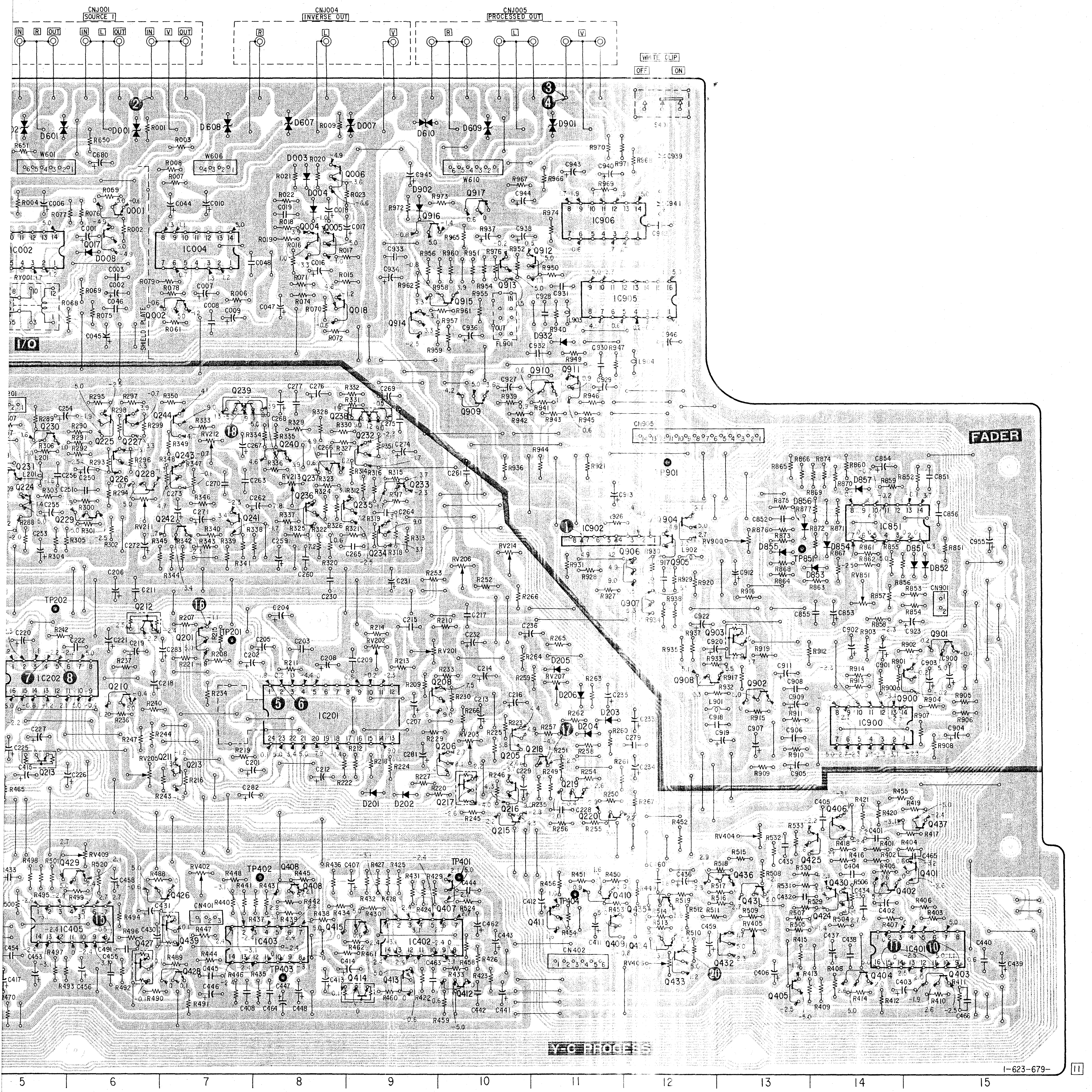
CNJ001
SOURCE I
CNJ004
INVERSE OUT
CNJ005
PROCESSED OUT
IN R OUT IN L OUT IN V OUT
R L V
R L V
WHITE CLIP
OFF ON
I/O
SHIELD PLATE
FADER
Y-C PROCESS
IC002 IC004 IC906 IC905 IC902 IC851 IC900 IC202 IC201 IC405 IC403 IC402 IC401
CN401 CN402 CN901 CN905
TP201 TP202 TP401 TP402 TP403 TP404 TP851 TP901
1-623-679-
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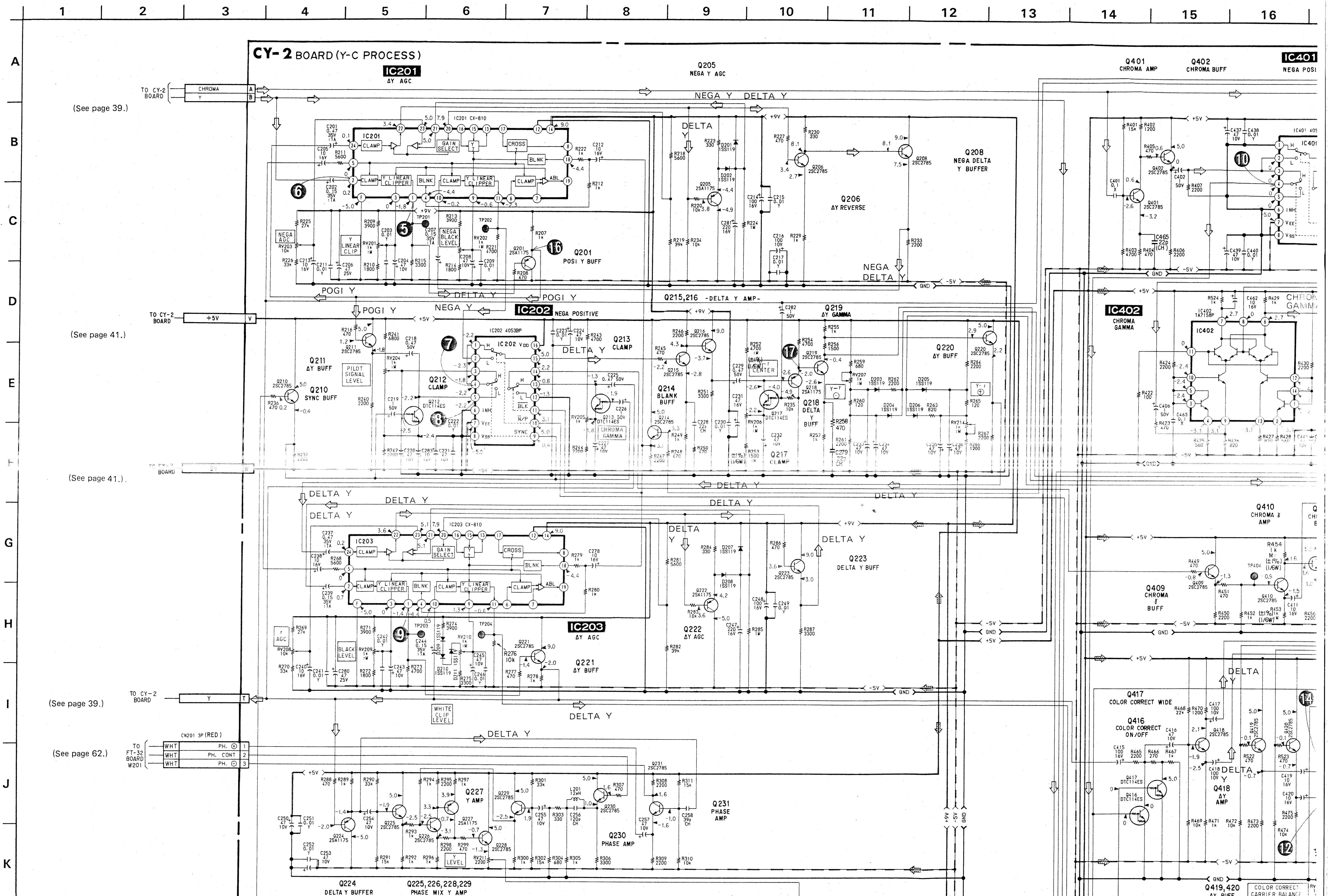
VIDEO (1) VIDEO (1)

CY-2 (CHROMA/Y PROCESS, COLOR CONTROL) SCHEMATIC DIAGRAM

—Ref. No. CY-2 BOARD : 1, 000 series—


1
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A
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D
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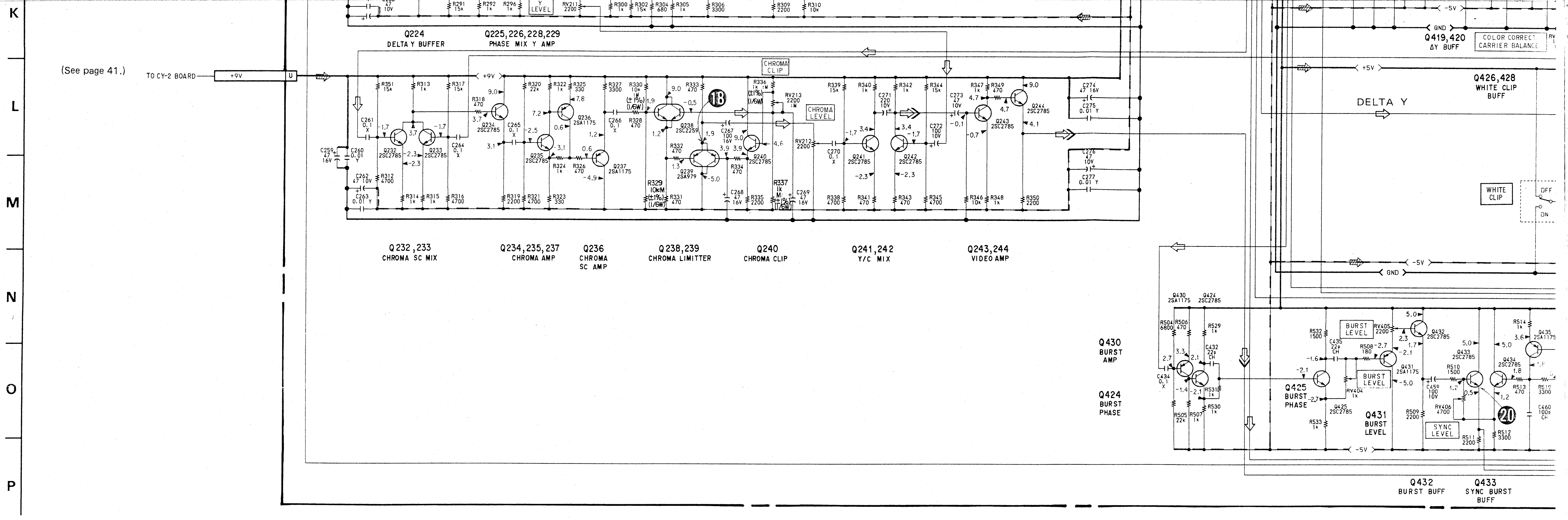
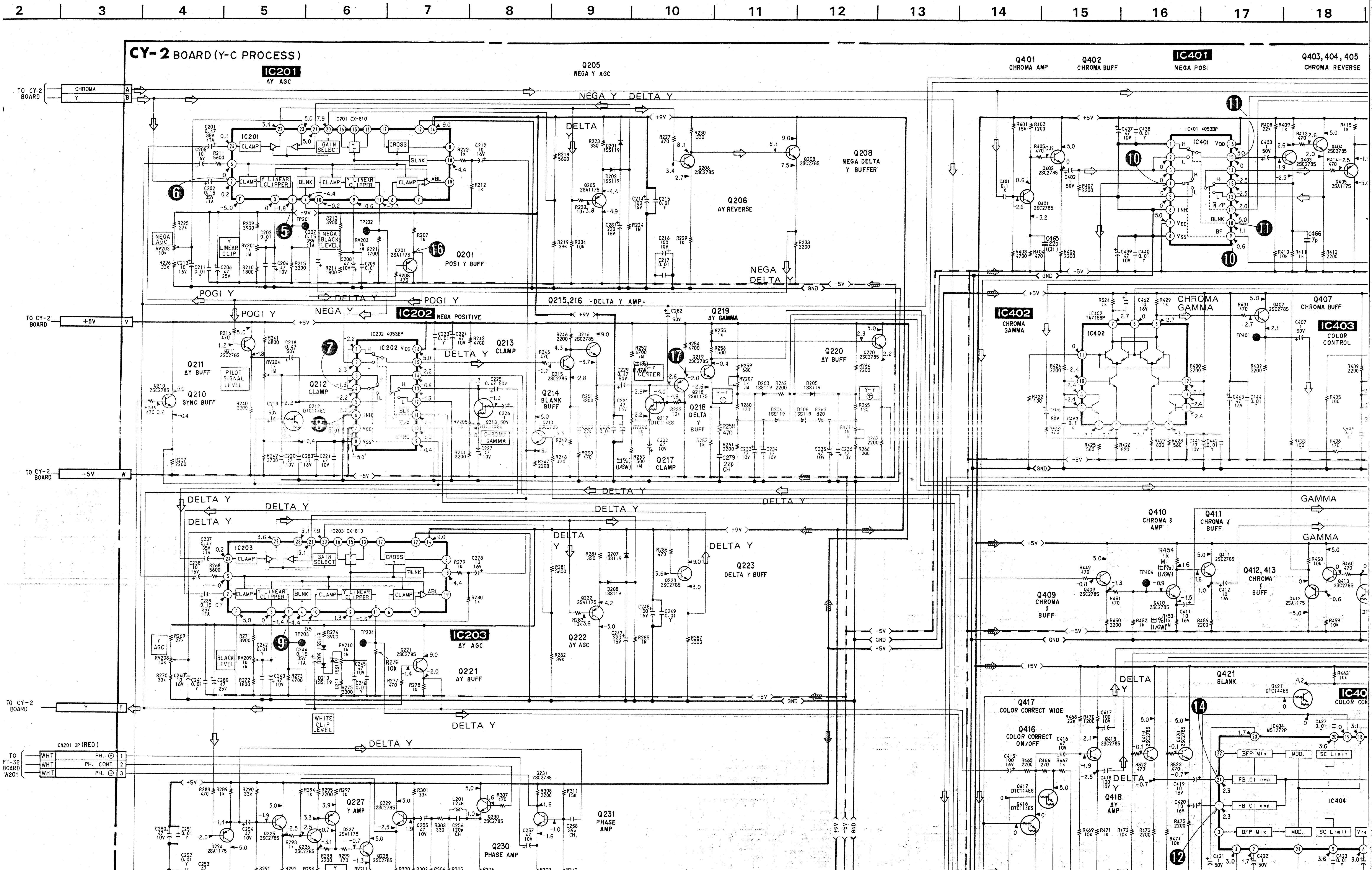
F
G
H
I
J
K
CY-2 BOARD (Y-C PROCESS)
TO CY-2 BOARD
CHROMA
Y
(See page 39.)
TO CY-2 BOARD
+5V
(See page 41.)
(See page 41.)
(See page 39.)
TO FT-32 BOARD W201
CN201 3P (RED)
WHT
PH. ⊕
PH. CONT
PH. ⊖
(See page 62.)
IC201 ΔY AGC
IC201 CX-810
CLAMP
GAIN SELECT
CROSS
BLNK
Y LINEAR CLIPPER
ABL
NEGA AGC
Y LINEAR CLIP
NEGA BLACK LEVEL
TP201
TP202
Q201 POSI Y BUFF
Q205 NEGA Y AGC
NEGA Y
DELTA Y
Q206 ΔY REVERSE
Q208 NEGA DELTA Y BUFFER
NEGA DELTA Y
POGI Y
IC202 NEGA POSITIVE
IC202 4053BP
Q211 ΔY BUFF
Q210 SYNC BUFF
PILOT SIGNAL LEVEL
Q212 CLAMP
Q213 CLAMP
CHROMA GAMMA
SYNC
N/P
Q215,216 -DELTA Y AMP-
Q214 BLANK BUFF
Q217 CLAMP
Q218 DELTA Y BUFF
Q219 ΔY GAMMA
Q220 ΔY BUFF
Y-γ CENTER
IC203 ΔY AGC
IC203 CX-810
BLACK LEVEL
γ AGC
TP203
TP204
Q221 ΔY BUFF
Q222 ΔY AGC
Q223 DELTA Y BUFF
WHITE CLIP LEVEL
Q224 DELTA Y BUFFER
Q225,226,228,229 PHASE MIX Y AMP
Q227 Y AMP
Y LEVEL
Q230 PHASE AMP
Q231 PHASE AMP
Q401 CHROMA AMP
Q402 CHROMA BUFF
IC401 NEGA POSI
IC402 CHROMA GAMMA
IC402 TA7158P
Q410 CHROMA γ AMP
Q409 CHROMA γ BUFF
TP404
Q417 COLOR CORRECT WIDE
Q416 COLOR CORRECT ON/OFF
Q418 ΔY AMP
Q419,420 ΔY BUFF
COLOR CORRECT CARRIER BALANCE
+9V
-5V
GND
+5V
⑤
⑥
⑦
⑧
⑨
⑩
⑫
⑯
⑰


K
L
M
N
O
P
(See page 41.)
TO CY-2 BOARD
+9V
Q224
DELTA Y BUFFER
Q225,226,228,229
PHASE MIX Y AMP
Y LEVEL
CHROMA CLIP
CHROMA LEVEL
18
Q232,233
CHROMA SC MIX
Q234,235,237
CHROMA AMP
Q236
CHROMA SC AMP
Q238,239
CHROMA LIMITTER
Q240
CHROMA CLIP
Q241,242
Y/C MIX
Q243,244
VIDEO AMP
Q419,420
ΔY BUFF
COLOR CORRECT CARRIER BALANCE
Q426,428
WHITE CLIP BUFF
DELTA Y
WHITE CLIP
OFF
ON
-5V
GND
+5V
Q430
BURST AMP
Q424
BURST PHASE
Q425
BURST PHASE
BURST LEVEL
Q431
BURST LEVEL
SYNC LEVEL
20
Q432
BURST BUFF
Q433
SYNC BURST BUFF

PROCESS, COLOR CONTROL) SCHEMATIC DIAGRAM

D : 1, 000 series—



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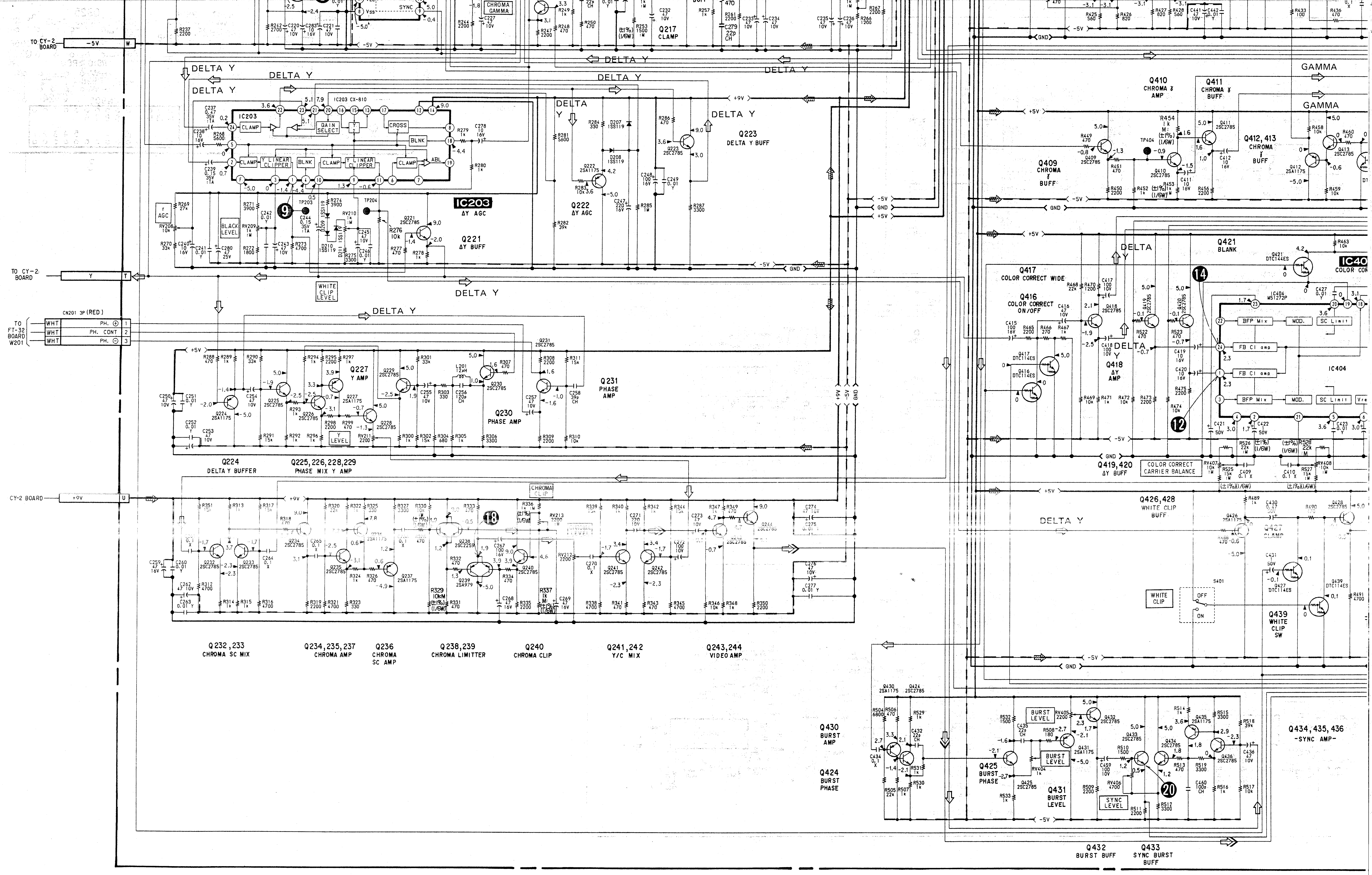
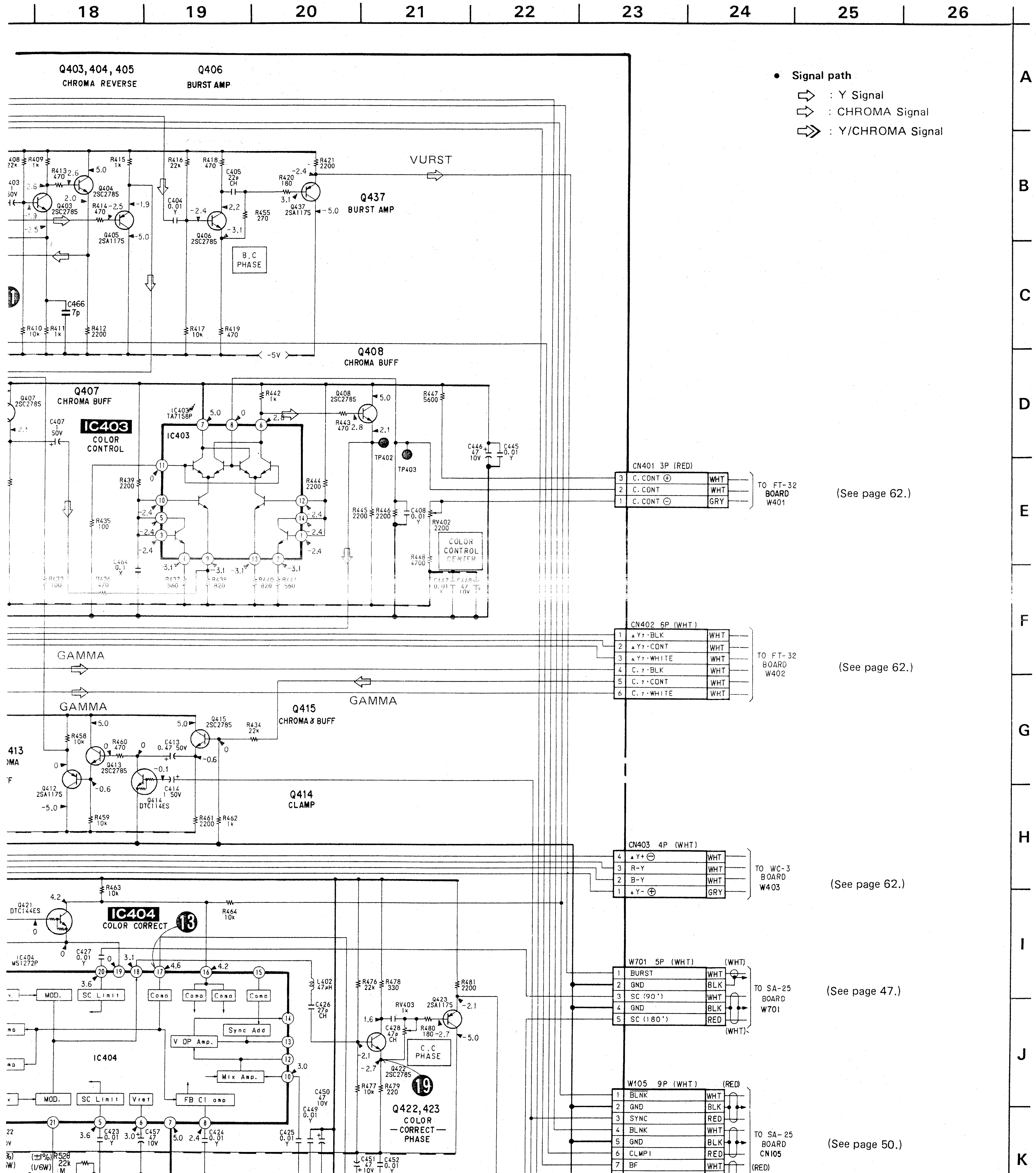
16
17
18
CY-2 BOARD (Y-C PROCESS)
IC201
ΔY AGC
Q205
NEGA Y AGC
Q401
CHROMA AMP
Q402
CHROMA BUFF
IC401
NEGA POSI
Q403, 404, 405
CHROMA REVERSE
TO CY-2 BOARD
CHROMA
Y
NEGA Y
DELTA Y
IC201 CX-810
CLAMP
GAIN SELECT
CROSS
BLNK
Y LINEAR CLIPPER
ABL
NEGA AGC
Y LINEAR CLIP
NEGA BLACK LEVEL
TP201
TP202
Q201
POSI Y BUFF
Q206
ΔY REVERSE
Q208
NEGA DELTA Y BUFFER
IC401 4053BP
POGI Y
NEGA Y
IC202
NEGA POSITIVE
IC202 4053BP
Q215,216 -DELTA Y AMP-
Q219
ΔY GAMMA
Q220
ΔY BUFF
Q213
CLAMP
Q214
BLANK BUFF
Q217
CLAMP
Q218
DELTA Y BUFF
Q211
ΔY BUFF
Q210
SYNC BUFF
PILOT SIGNAL LEVEL
Q212
CLAMP
γ CENTER
IC402
CHROMA GAMMA
IC402 TA7158P
Q407
CHROMA BUFF
IC403
COLOR CONTROL
TP401
TO CY-2 BOARD
+5V
-5V
GND
+9V
IC203
IC203 CX-810
ΔY AGC
γ AGC
BLACK LEVEL
TP203
TP204
WHITE CLIP LEVEL
Q221
ΔY BUFF
Q222
ΔY AGC
Q223
DELTA Y BUFF
GAMMA
Q410
CHROMA γ AMP
Q411
CHROMA γ BUFF
Q409
CHROMA γ BUFF
Q412, 413
CHROMA γ BUFF
TP404
Q421
BLANK
Q421 DTC144ES
IC404 M51272P
BFP Mix
MOD.
SC Limit
FB Cl amp
Q417
COLOR CORRECT WIDE
Q416
COLOR CORRECT ON/OFF
Q418
ΔY AMP
CN201 3P (RED)
TO FT-32 BOARD W201
WHT
PH. ⊕
PH. CONT
PH. ⊖
Q227
Y AMP
Q230
PHASE AMP
Q231
PHASE AMP
6
5
16
7
8
17
9
11
10
14
12


TO CY-2 BOARD
-5V
W
DELTA Y
IC203 CX-810
IC203
CLAMP
GAIN SELECT
CROSS
BLNK
Y LINEAR CLIPPER
ABL
IC203
ΔY AGC
r AGC
BLACK LEVEL
WHITE CLIP LEVEL
TP203
TP204
Q221
ΔY BUFF
Q222
ΔY AGC
Q223
DELTA Y BUFF
Q217
CLAMP
CHROMA GAMMA
SYNC
TO CY-2 BOARD
Y
T
TO FT-32 BOARD W201
CN201 3P (RED)
WHT
PH. ⊕
PH. CONT
PH. ⊖
Q227
Y AMP
Q230
PHASE AMP
Q231
PHASE AMP
Y LEVEL
Q224
DELTA Y BUFFER
Q225,226,228,229
PHASE MIX Y AMP
CY-2 BOARD
+9V
U
CHROMA CLIP
CHROMA LEVEL
Q232,233
CHROMA SC MIX
Q234,235,237
CHROMA AMP
Q236
CHROMA SC AMP
Q238,239
CHROMA LIMITTER
Q240
CHROMA CLIP
Q241,242
Y/C MIX
Q243,244
VIDEO AMP
+9V
-5V
GND
GAMMA
Q410
CHROMA γ AMP
Q411
CHROMA γ BUFF
Q409
CHROMA γ BUFF
Q412, 413
CHROMA γ BUFF
TP404
Q421
BLANK
IC404
COLOR COR
Q417
COLOR CORRECT WIDE
Q416
COLOR CORRECT ON/OFF
Q418
ΔY AMP
IC404 M51272P
BFP Mix
MOD.
SC Limit
FB Cl amp
Q419,420
ΔY BUFF
COLOR CORRECT CARRIER BALANCE
Q426,428
WHITE CLIP BUFF
Q427
CLAMP
WHITE CLIP
S401
OFF
ON
Q439
WHITE CLIP SW
Q430
BURST AMP
Q424
BURST PHASE
Q425
BURST PHASE
BURST LEVEL
Q431
BURST LEVEL
SYNC LEVEL
Q432
BURST BUFF
Q433
SYNC BURST BUFF
Q434,435,436
-SYNC AMP-
⑨
⑫
⑭
⑱
⑳

VIDEO (1)　VIDEO (1)


18
19
20
21
22
23
24
25
26
A
B
C
D
E
F
G
H
I
J
K
Q403, 404, 405
CHROMA REVERSE
Q406
BURST AMP
Q437
BURST AMP
VURST
B.C PHASE
Q408
CHROMA BUFF
Q407
CHROMA BUFF
IC403
COLOR CONTROL
IC403 TA7158P
COLOR CONTROL CENTER
TP402
TP403
RV402
CN401 3P (RED)
C. CONT ⊕
C. CONT
C. CONT ⊖
TO FT-32 BOARD W401
(See page 62.)
CN402 6P (WHT)
▵Y↑·BLK
▵Y↑·CONT
▵Y↑·WHITE
C.↑·BLK
C.↑·CONT
C.↑·WHITE
TO FT-32 BOARD W402
(See page 62.)
GAMMA
Q415
CHROMA & BUFF
Q414
CLAMP
CN403 4P (WHT)
▵Y+⊖
R-Y
B-Y
▵Y-⊕
TO WC-3 BOARD W403
(See page 62.)
IC404
COLOR CORRECT
IC404 M51272P
MOD.
SC Limit
Comp
Sync Add
V OP Amp.
Mix Amp.
Vref
FB Cl amp
Q421 DTC144ES
Q422, 423
COLOR CORRECT PHASE
C.C PHASE
W701 5P (WHT)
BURST
GND
SC (90°)
GND
SC (180°)
TO SA-25 BOARD W701
(See page 47.)
W105 9P (WHT)
BLNK
GND
SYNC
BLNK
GND
CLMP1
BF
TO SA-25 BOARD CN105
(See page 50.)
WHT
BLK
RED
GRY

- Signal path
  - ⇨ : Y Signal
  - ⇨ : CHROMA Signal
  - ⇨ : Y/CHROMA Signal

Note:

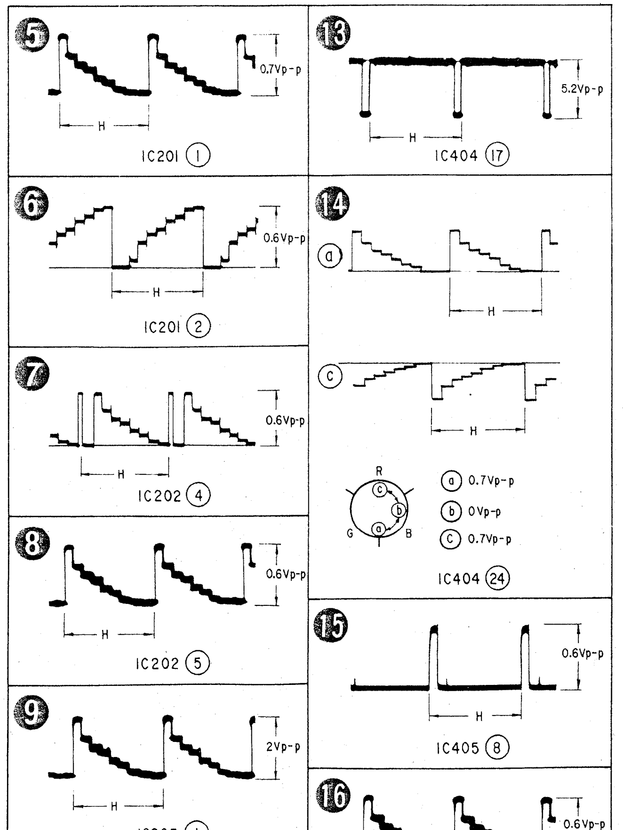
- All resistors are in ohms, 1/4W unless otherwise noted. kΩ: 1000Ω, MΩ: 1000kΩ.
- All capacitors are in μF unless otherwise noted. pF : μμF. 50 V or less are not indicated except for electrolytics. and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- ▭ : panel designation.
- △ : internal component.
- ▭ : adjustment for repair.
- ━━ : B + bus.
- ‐ ‐ ‐ : B − bus.
- ⇨ : IN/OUT direction of +B, −B bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltage variations may be noted due to normal production tolerances.
- Voltage and waveform measuring conditions. Receive an PAL color bar signal on SOURCE VIDEO 1 terminal.

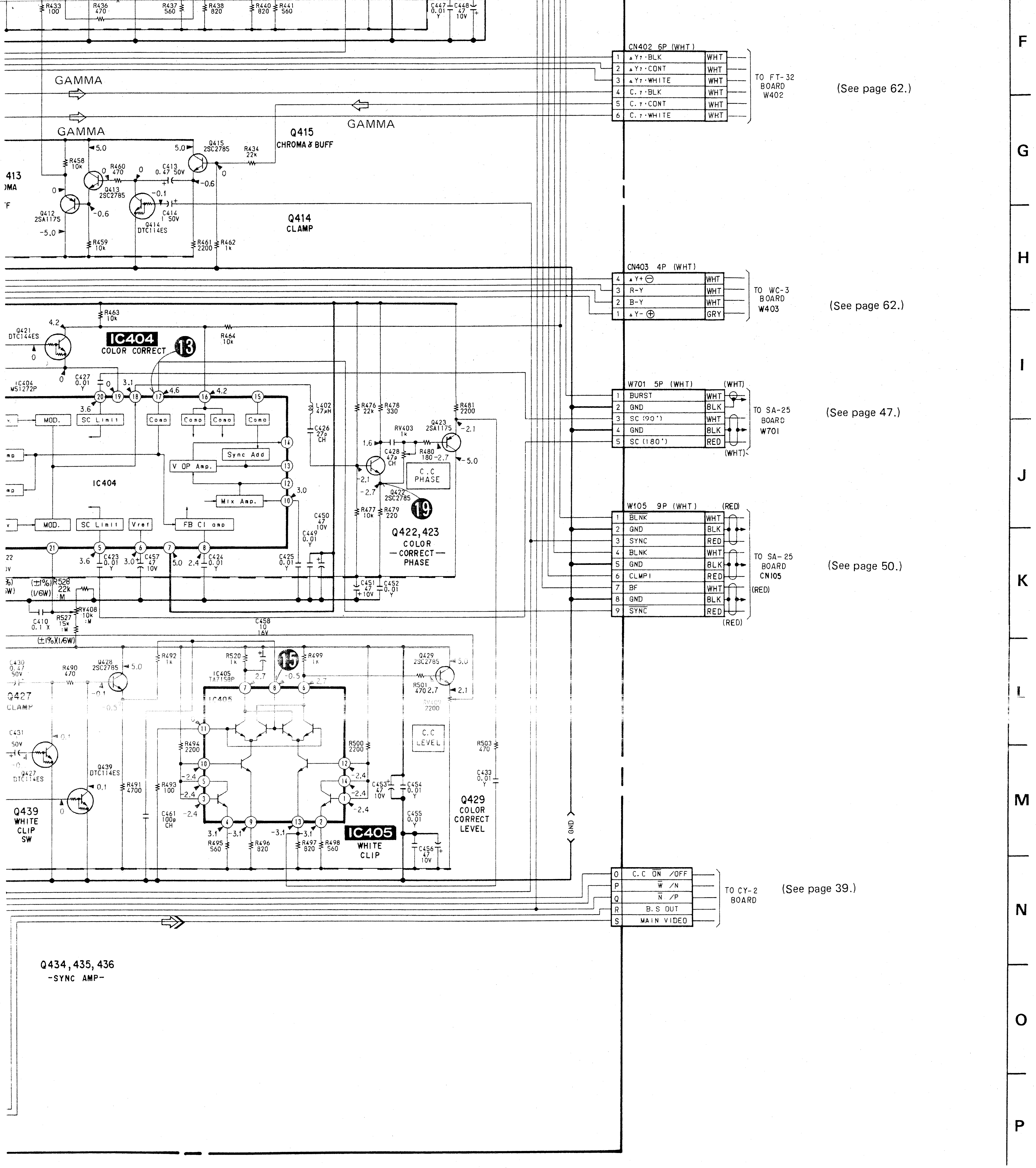
INPUT SELECT SWITCH	: 1
VIDEO ART VOLUME	: MAX
REVERSE SWITCH	: OFF
REVERSE (NEGA/POSI) SWITCH	: OFF
COLOR SELECT SWITCH	: COLOR BAR
WIPE PATTERN ◧	: ON
WIPE PATTERN ◨	: ON
WIPE PATTERN ⬓	: ON
WIPE PATTERN ⬒	: ON
WIPE KNOB	: MIN
COLOR CORRECT SWITCH	: ON
WIDE RANGE SWITCH	: OFF
FADER VIDEO SWITCH	: ON
FADER AUDIO SWITCH	: ON
WHITE CLIP SWITCH	: ON

Set the control knob to the mechanical center position unless otherwise noted.

When indicating parts by reference number, please include the board name.

CY-2 BOARD


⑤
0.7Vp-p
H
IC201 ①
⑬
5.2Vp-p
H
IC404 ⑰
⑥
0.6Vp-p
H
IC201 ②
⑭
ⓐ
ⓒ
H
R
G
B
ⓐ 0.7Vp-p
ⓑ 0Vp-p
ⓒ 0.7Vp-p
IC404 ㉔
⑦
0.6Vp-p
H
IC202 ④
⑧
0.6Vp-p
H
IC202 ⑤
⑮
0.6Vp-p
H
IC405 ⑧
⑨
2Vp-p
H
⑯
0.6Vp-p


CN402 6P (WHT)
TO FT-32 BOARD W402
GAMMA
Q415 CHROMA & BUFF
Q414 CLAMP
CN403 4P (WHT)
TO WC-3 BOARD W403
IC404 COLOR CORRECT
⑬
W701 5P (WHT)
BURST
GND
SC (90°)
SC (180°)
TO SA-25 BOARD W701
W105 9P (WHT)
BLNK
SYNC
CLMP1
BF
TO SA-25 BOARD CN105
Q422,423 COLOR CORRECT PHASE
⑲
C.C PHASE
IC405 WHITE CLIP
⑮
C.C LEVEL
Q429 COLOR CORRECT LEVEL
Q427 CLAMP
Q439 WHITE CLIP SW
C.C ON /OFF
W /N
N /P
B.S OUT
MAIN VIDEO
TO CY-2 BOARD
Q434, 435, 436 -SYNC AMP-
GND
F
G
H
I
J
K
L
M
N
O
P

(See page 62.)

(See page 62.)

(See page 47.)

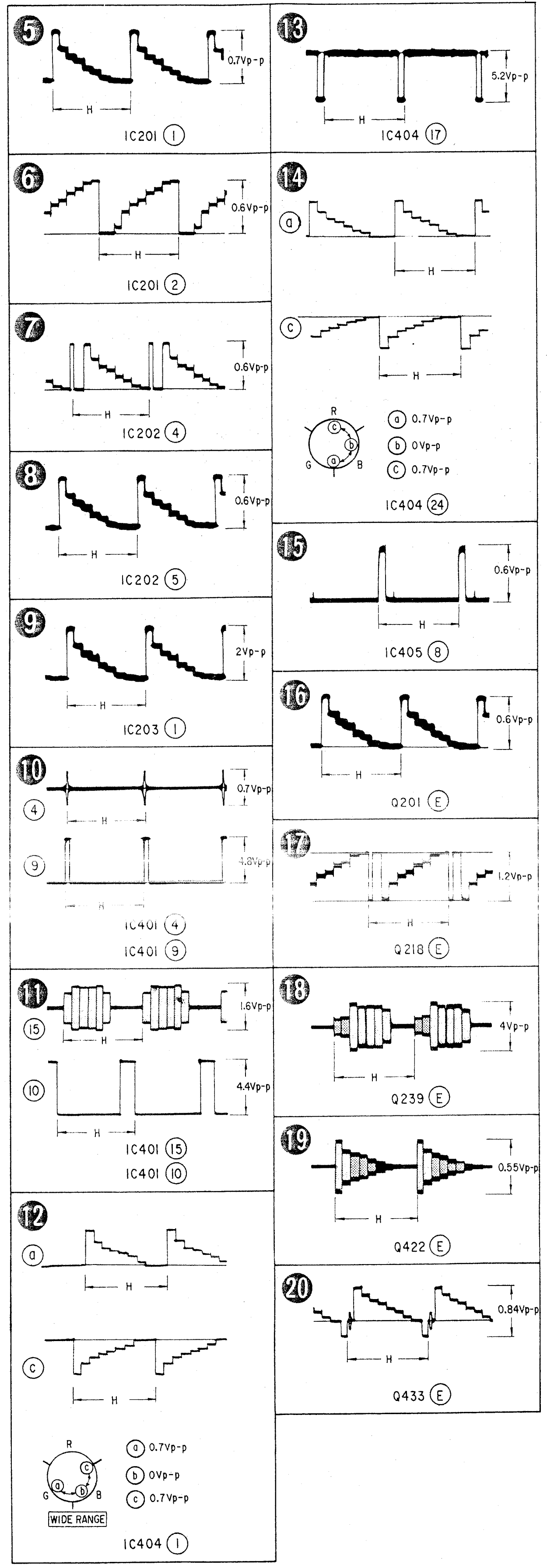
(See page 50.)

(See page 39.)

Set the control knob to the mechanical center position
otherwise noted.

When indicating parts by reference number, please include the board name.

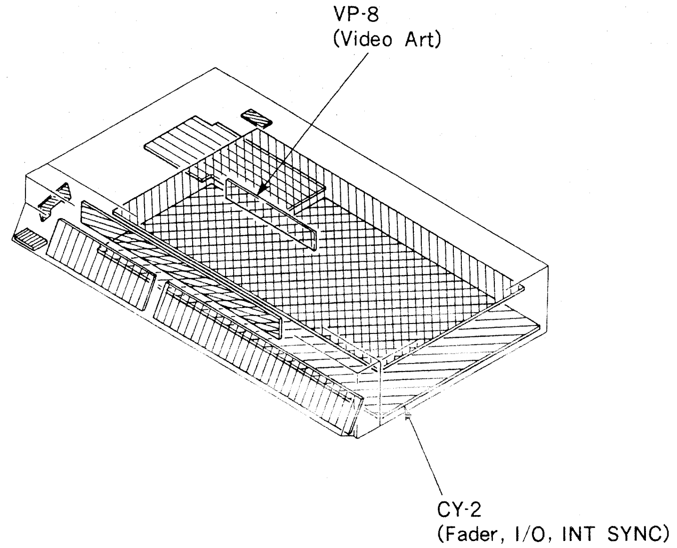
CY-2 BOARD


⑤ 0.7Vp-p H IC201 ①
⑥ 0.6Vp-p H IC201 ②
⑦ 0.6Vp-p H IC202 ④
⑧ 0.6Vp-p H IC202 ⑤
⑨ 2Vp-p H IC203 ①
⑩ ④ 0.7Vp-p ⑨ 4.8Vp-p H IC401 ④ IC401 ⑨
⑪ ⑮ 1.6Vp-p ⑩ 4.4Vp-p H IC401 ⑮ IC401 ⑩
⑫ ⓐ ⓒ H R G B ⓐ 0.7Vp-p ⓑ 0Vp-p ⓒ 0.7Vp-p WIDE RANGE IC404 ①
⑬ 5.2Vp-p H IC404 ⑰
⑭ ⓐ ⓒ H R G B ⓐ 0.7Vp-p ⓑ 0Vp-p ⓒ 0.7Vp-p IC404 ㉔
⑮ 0.6Vp-p H IC405 ⑧
⑯ 0.6Vp-p H Q201 Ⓔ
⑰ 1.2Vp-p H Q218 Ⓔ
⑱ 4Vp-p H Q239 Ⓔ
⑲ 0.55Vp-p H Q422 Ⓔ
⑳ 0.84Vp-p H Q433 Ⓔ

Note:

- ○— : indicates a lead wire mounted on the component side.
- ●— : indicates a lead wire mounted on the printed side.
- ▨ : soldering side.

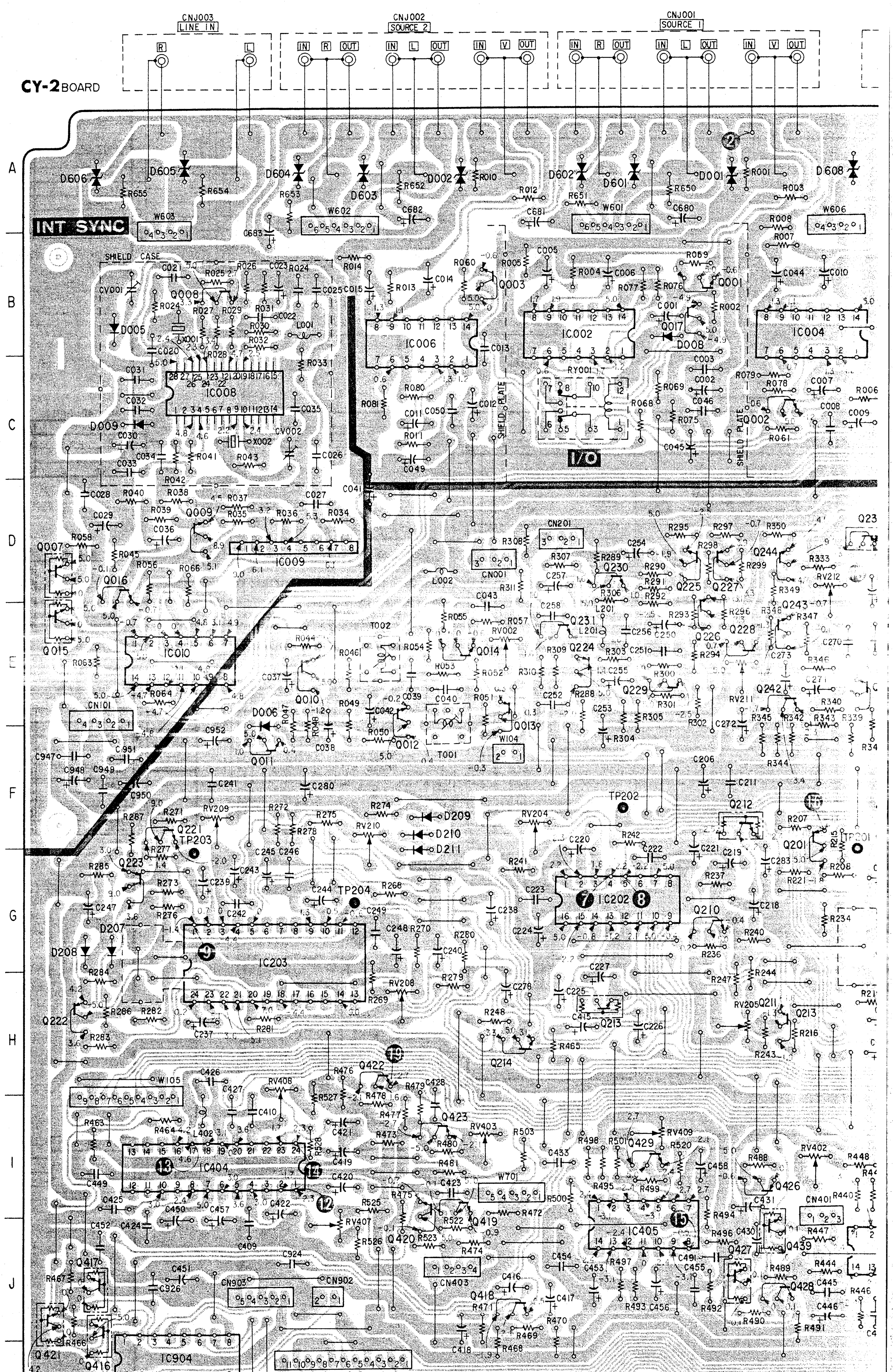
When indicating parts by reference number, please include the board name.



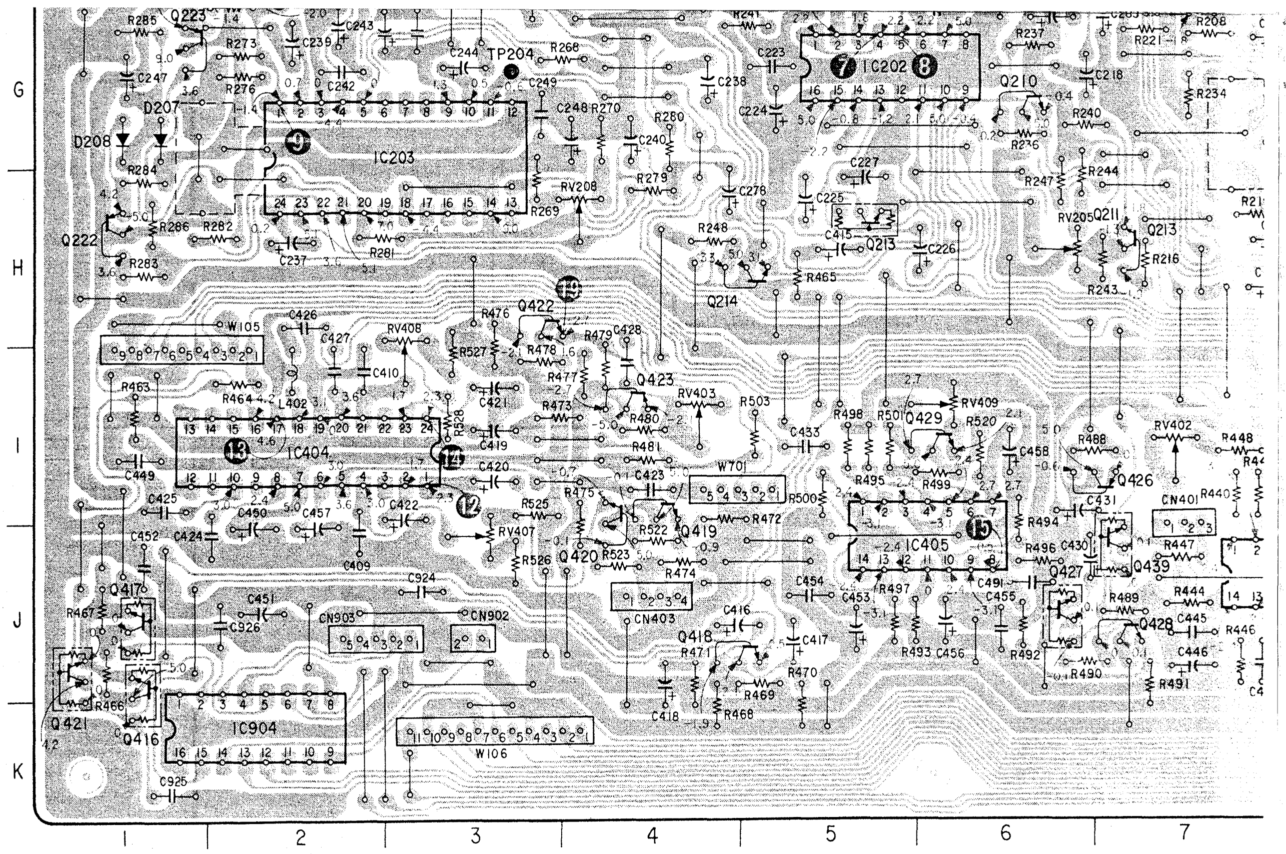
CN001	D-4
CN101	E-1
CN201	D-5
CN401	I-7
CN402	J-11
CN403	J-4
CN901	F-15
CN902	J-3
CN903	J-2
CN905	D-12
CNJ001	A-6
CNJ002	A-4
CNJ003	A-2
CNJ004	A-8
CNJ005	A-10
CV001	B-1
CV002	C-3
D001	A-6
D002	A-4
D003	A-8
D004	B-8
D005	B-1
D006	E-2
D007	A-9
D008	B-6
D009	C-1
D201	H-9
D202	H-9
D203	G-11
D204	G-11
D205	G-11
D206	G-11
D207	G-1
D208	G-1
D209	F-4
D210	F-4
D211	F-4
D601	A-5
D602	A-5
D603	A-3
D604	A-3
D605	A-2
D606	A-1
D607	A-8
D608	A-7
D609	A-10
D610	A-9
D851	F-15
D852	F-15
D853	F-13
D854	E-14
D855	
D856	E-13
D857	E-14
D901	A-11
D902	B-9
D932	C-11
IC002	B-5
IC004	B-7
IC006	B-4
IC008	C-2
IC009	D-3
IC010	E-2
IC201	G-8
IC202	G-5
IC203	G-2
IC401	J-15
IC402	J-9
IC403	J-8
IC404	I-2
IC405	J-6
IC851	E-14
IC900	G-14
IC902	E-11
IC904	K-2
IC905	C-11
IC906	B-11
Q001	B-6
Q002	C-7
Q003	B-4
Q004	B-8
Q005	B-8
Q006	A-9
Q007	D-1
Q008	B-2
Q009	D-2
Q010	E-3
Q011	F-2
Q012	F-4
Q013	E-4
Q014	E-4
Q015	E-1
Q016	D-1
Q017	B-6
Q018	C-8
Q201	F-7
Q205	H-10
Q206	H-10
Q208	G-9
Q210	G-6
Q211	H-7
Q212	F-6
Q213	H-5
Q214	H-4
Q215	H-10
Q216	H-10
Q217	H-10
Q218	H-11
Q219	H-11
Q220	H-11
Q221	F-2
Q222	H-1
Q223	G-1
Q224	E-5
Q225	D-6
Q226	E-6
Q227	D-6
Q228	E-6
Q229	E-5
Q230	D-5
Q231	E-5
Q232	D-9
Q233	E-9
Q234	F-9
Q235	E-9
Q236	E-8
Q237	E-8
Q238	D-8
Q239	D-7
Q240	D-8
Q241	E-7
Q242	E-7
Q243	E-7
Q244	D-7
Q401	I-15
Q402	I-15
Q403	J-15
Q404	J-14
Q405	J-13
Q406	H-14
Q407	I-10
Q408	I-8
Q409	J-11
Q410	I-11
Q411	J-11
Q412	J-10
Q413	J-9
Q414	J-9
Q415	J-8
Q416	K-1
Q417	J-1
Q418	J-4
Q419	J-4
Q420	J-4
Q421	K-1
Q422	H-3
Q423	I-4
Q424	I-14
Q425	I-13
Q426	I-7
Q427	J-6
Q428	J-7
Q429	I-6
Q430	I-14
Q431	I-13
Q432	J-13
Q433	J-12
Q434	J-12
Q435	I-12
Q436	I-13
Q437	H-15
Q439	J-7
Q900	G-15
Q901	F-15
Q902	G-13
Q903	F-12
Q904	E-12
Q905	F-12
Q906	F-12
Q907	F-12
Q908	G-12
Q909	D-10
Q910	D-11
Q911	D-11
Q912	B-11
Q913	C-10
Q914	C-9
Q915	C-10
Q916	B-9
Q917	B-10
RV002	E-4
RV201	G-10
RV202	F-9
RV203	H-10
RV204	F-5
RV205	H-6
RV206	F-10
RV207	G-11
RV208	H-4
RV209	F-2
RV210	F-3
RV211	E-6
RV212	D-7
RV213	E-8
RV214	F-10
RV402	I-7
RV403	I-4
RV404	I-13
RV405	J-13
RV406	J-12
RV407	J-3
RV408	H-3
RV409	I-6
RV851	F-14
RV900	E-12
TP201	F-7
TP202	F-5
TP203	F-2
TP204	G-3
TP401	I-10
TP402	I-8
TP403	J-8
TP404	I-11
TP851	F-13
TP901	E-12
W104	F-4
W105	H-2
W106	K-3
W601	A-5
W602	A-3
W603	A-2
W606	A-7
W610	B-10
W701	I-4

CY-2 (FADER, I/O INT SYNC), VP-8 (VIDEO ART) PRINTED WIRING BOARDS

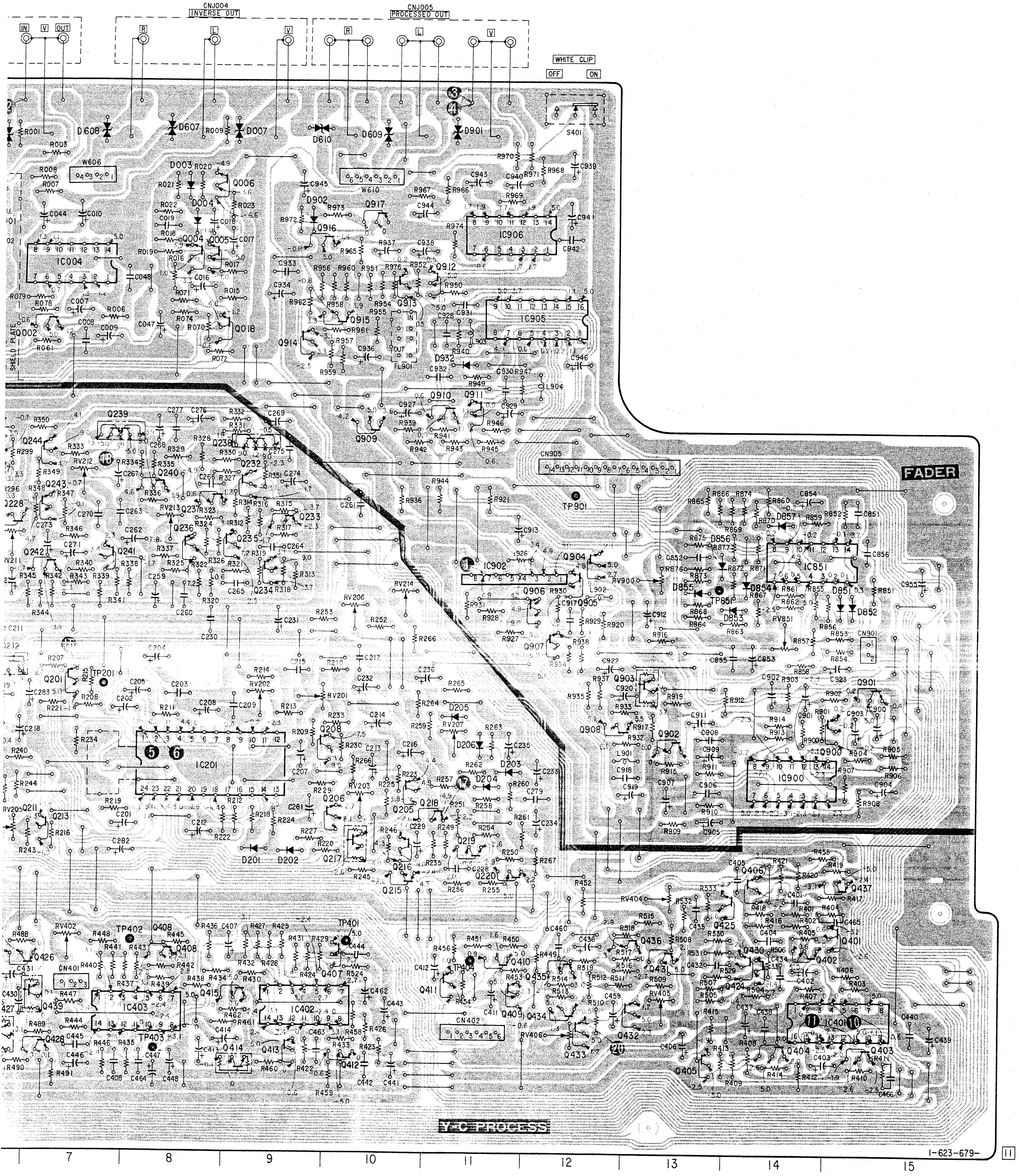
—Ref. No. CY-2 BOARD : 1, 000 series, VP-8 BOARD : 2, 000 series—



IC009	D-3	Q419	J-4
IC010	E-2	Q420	J-4
IC201	G-8	Q421	K-1
IC202	G-5	Q422	H-3
IC203	G-2	Q423	I-4
IC401	J-15	Q424	I-14
IC402	J-9	Q425	I-13
IC403	J-8	Q426	I-7
IC404	I-2	Q427	J-6
IC405	J-6	Q428	J-7
IC851	E-14	Q429	I-6
IC900	G-14	Q430	I-14
IC902	E-11	Q431	I-13
IC904	K-2	Q432	J-13
IC905	C-11	Q433	J-12
IC906	B-11	Q434	J-12
		Q435	I-12
Q001	B-6	Q436	I-13
Q002	C-7	Q437	H-15
Q003	B-4	Q439	J-7
Q004	B-8	Q900	G-15
Q005	B-8	Q901	F-15
Q006	A-9	Q902	G-13
Q007	D-1	Q903	F-12
Q008	B-2	Q904	E-12
Q009	D-2	Q905	F-12
Q010	E-3	Q906	F-12


G
H
I
J
K
1
2
3
4
5
6
7
IC203
IC202
IC404
IC405
IC904
W105
W106
W701
TP204
Q222
Q223
Q210
Q211
Q213
Q214
Q416
Q417
Q418
Q419
Q420
Q421
Q422
Q423
Q426
Q427
Q428
Q429
Q439
D207
D208
CN401
CN403
CN902
CN903
RV208
RV205
RV402
RV403
RV407
RV408
RV409
L402

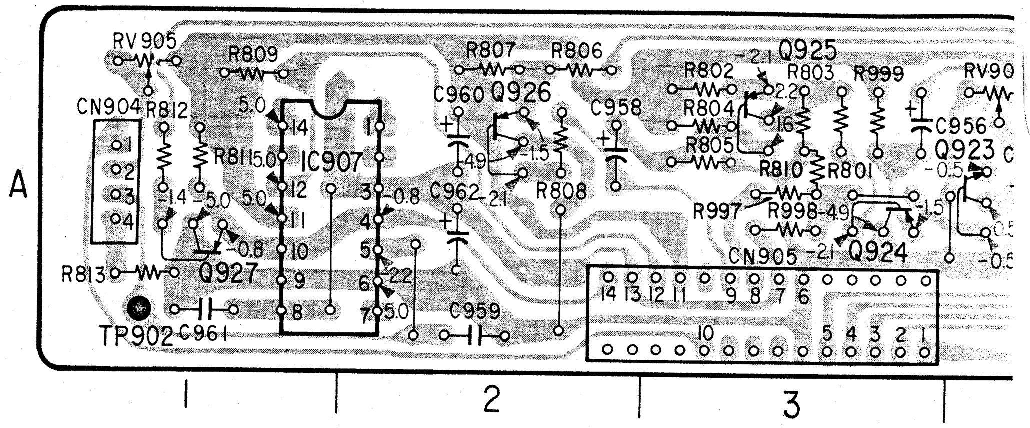
VIDEO (2)



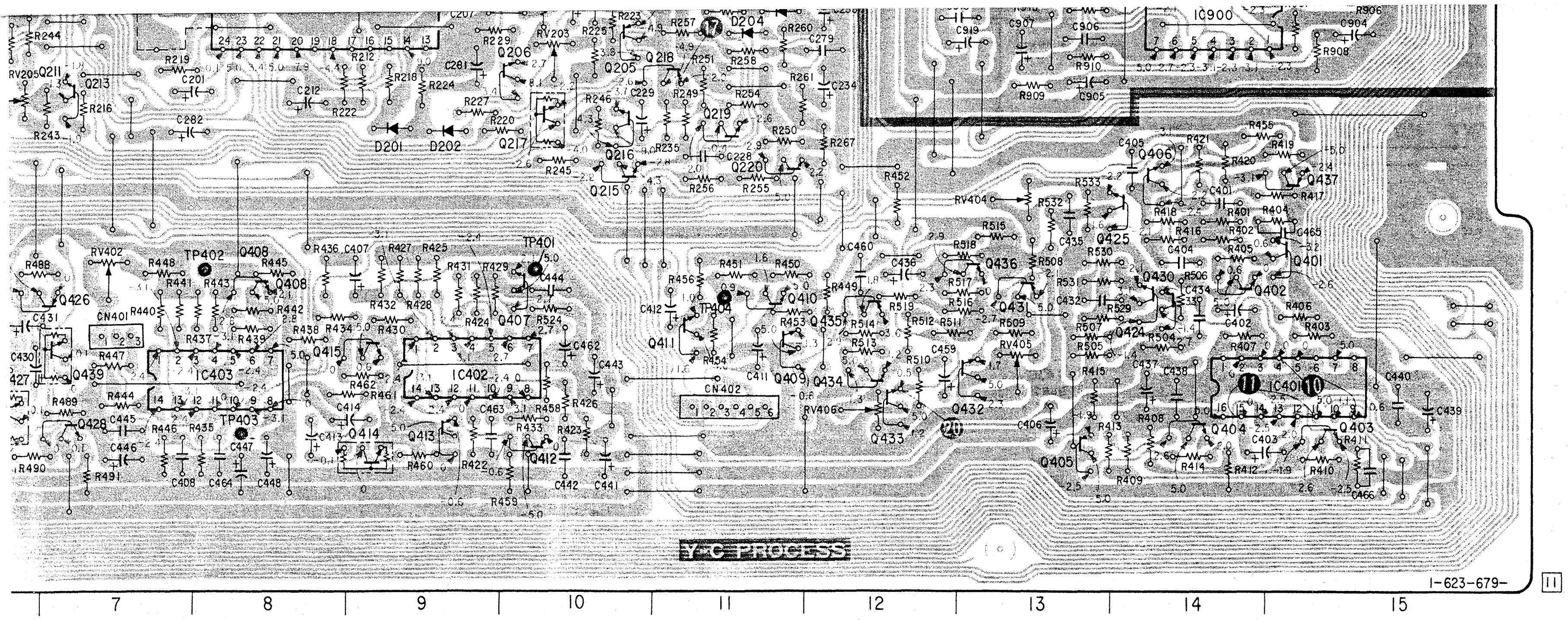
CNJ004
INVERSE OUT
CNJ005
PROCESSED OUT
IN
V
OUT
R
L
V
WHITE CLIP
OFF
ON
S401
IC004
IC906
IC905
IC902
IC851
IC900
IC201
IC403
IC402
IC401
CN905
CN901
CN401
CN402
TP901
TP851
TP201
TP401
TP402
TP403
TP404
FADER
Y-C PROCESS
SHIELD PLATE
1-623-679-
11
7
8
9
10
11
12
13
14
15

CN904	A-1
CN905	A-3
IC901	A-4
IC907	A-1
Q920	A-5
Q922	A-4
Q923	A-4
Q924	A-3
Q925	A-3
Q926	A-2
Q927	A-1
RV904	A-4
RV905	A-1

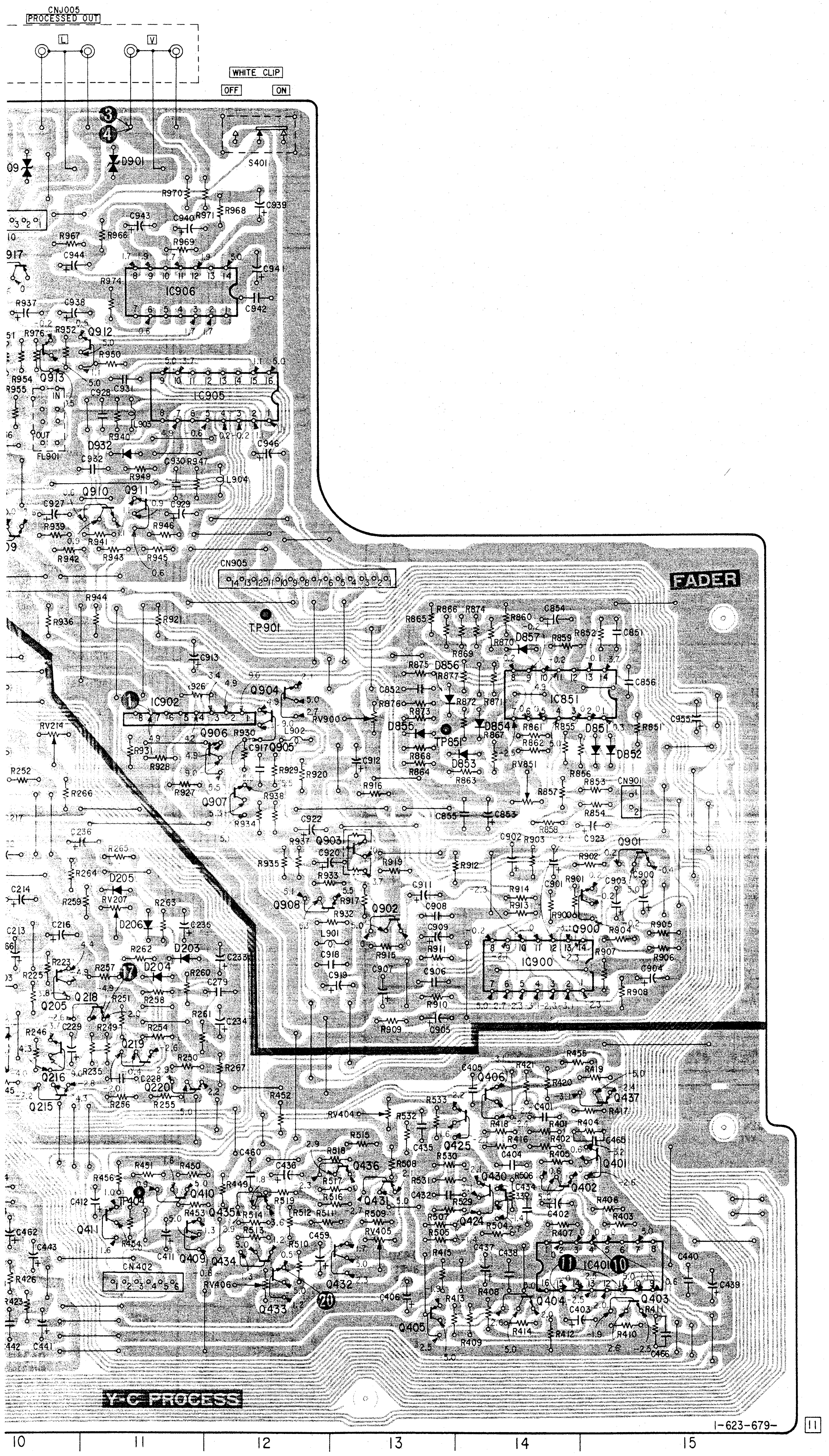
VP-8 BOARD



A
1
2
3
CN904
CN905
IC907
Q923
Q924
Q925
Q926
Q927
RV905
TP902

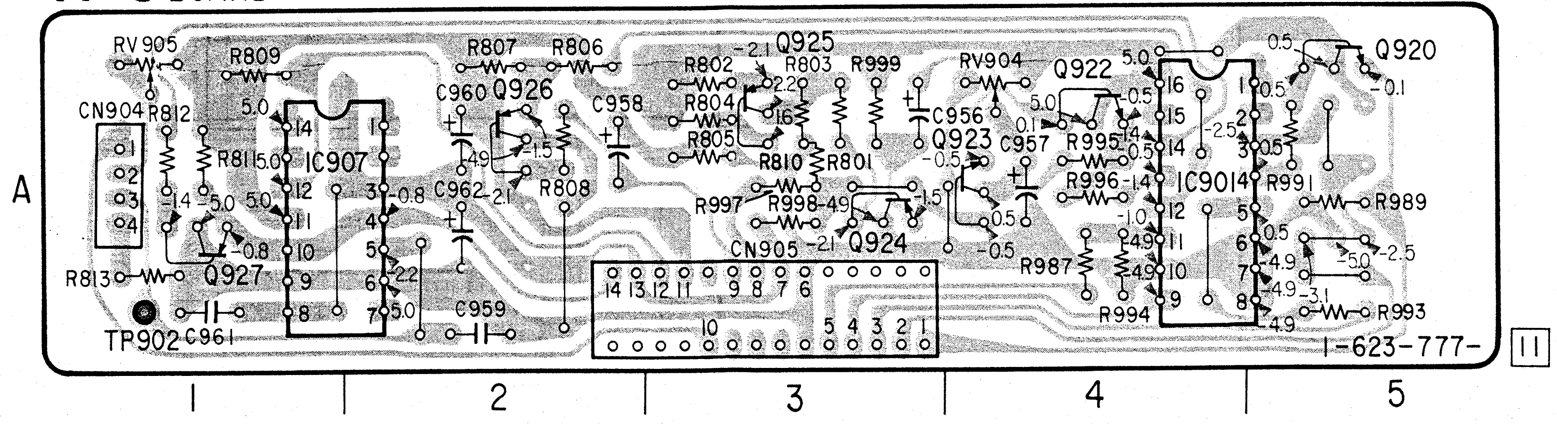

Y-C PROCESS
1-623-679-
11
7
8
9
10
11
12
13
14
15
IC403
IC402
IC401
IC900
CN401
CN402
TP401
TP402
TP403
TP404
RV402
RV404
RV405
RV406

VIDEO (2)　VIDEO (2)


CNJ005
PROCESSED OUT
L
V
WHITE CLIP
OFF
ON
FADER
Y-C PROCESS
1-623-679-
11
10
11
12
13
14
15

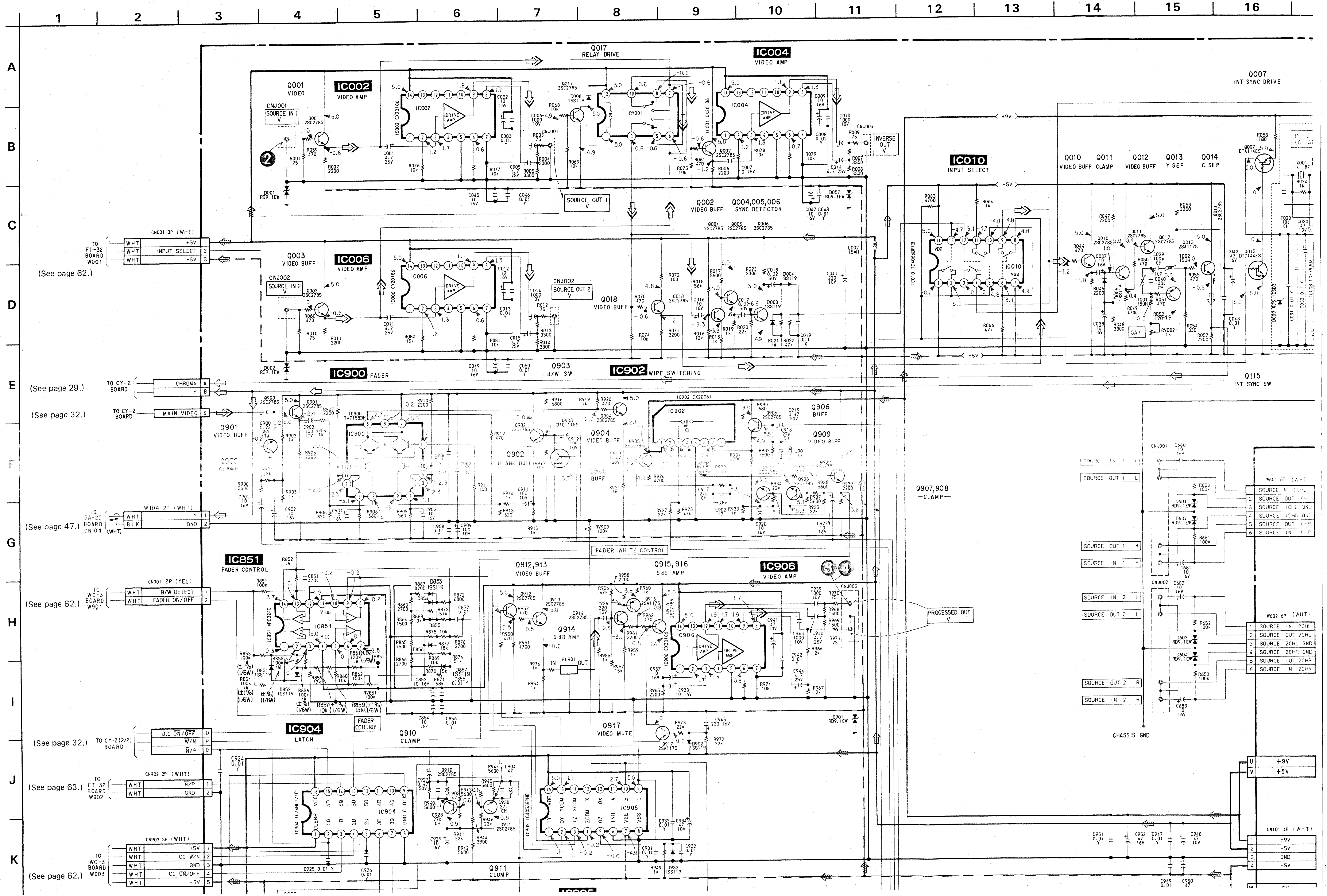
CN904	A-1
CN905	A-3
IC901	A-4
IC907	A-1
Q920	A-5
Q922	A-4
Q923	A-4
Q924	A-3
Q925	A-3
Q926	A-2
Q927	A-1
RV904	A-4
RV905	A-1

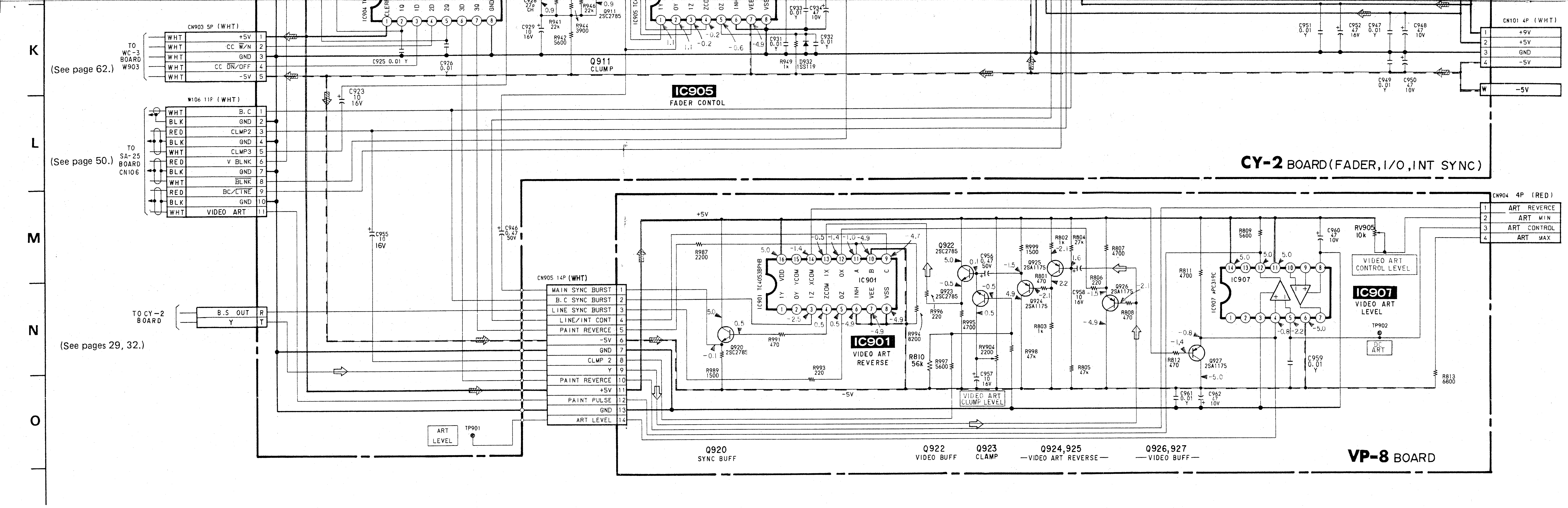
VP-8 BOARD


A
RV905
R809
R807
R806
Q925
R999
RV904
Q922
Q920
CN904
IC907
Q926
C958
Q923
IC901
Q924
Q927
CN905
TP902
C961
C959
R987
R994
R993
R989
1-623-777-
11
1
2
3
4
5

CY-2 (FADER, I/O, INT SYNC), VP-8 (VIDEO ART) SCHEMATIC DIAGRAM

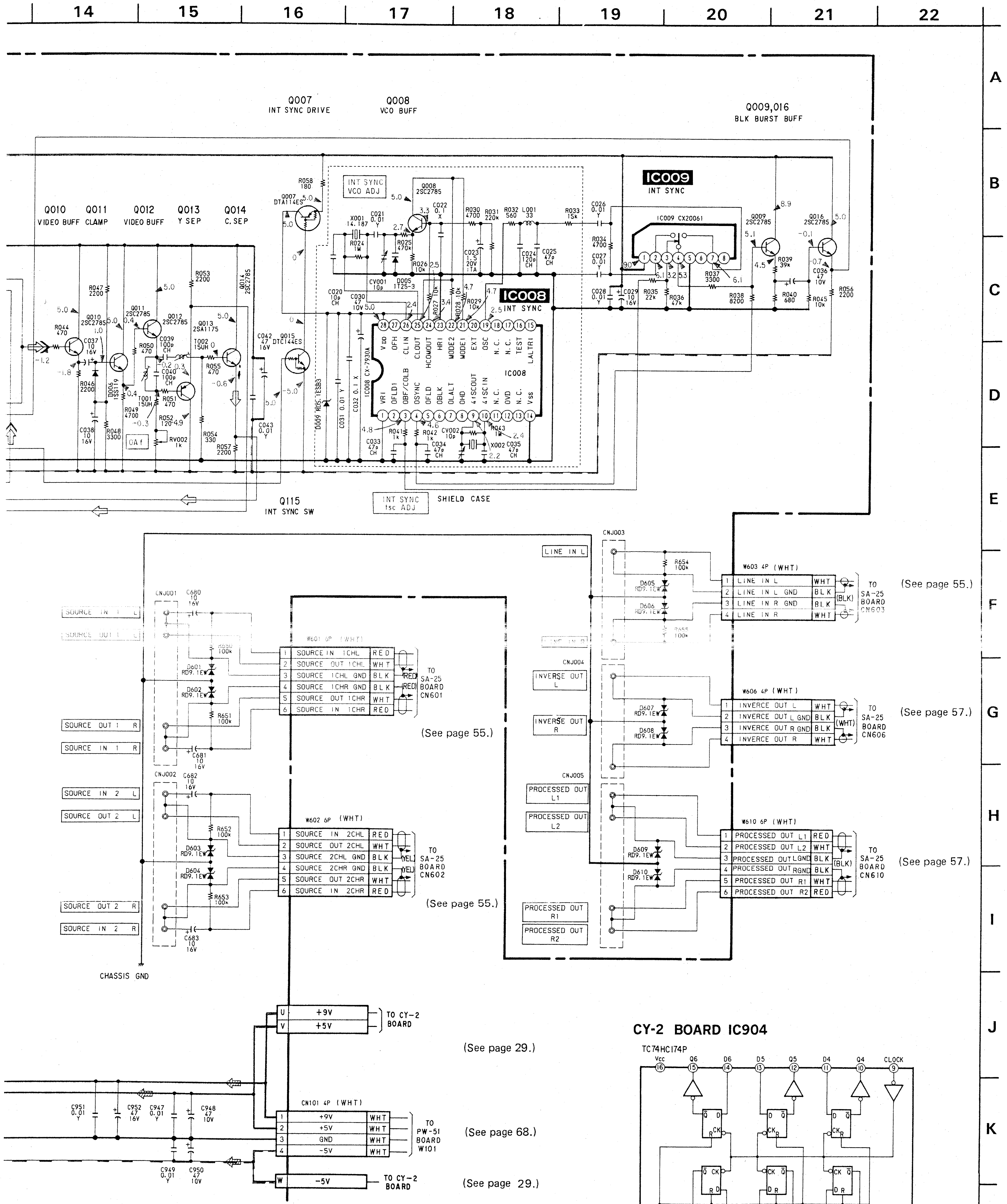
—Ref. No. CY-2 BOARD : 1, 000 series, VP-8 BOARD : 2, 000 series—


Q017 RELAY DRIVE
IC004 VIDEO AMP
Q001 VIDEO
IC002 VIDEO AMP
CNJ001 SOURCE IN 1 V
INVERSE OUT V
Q007 INT SYNC DRIVE
IC010 INPUT SELECT
Q010 VIDEO BUFF
Q011 CLAMP
Q012 VIDEO BUFF
Q013 Y SEP
Q014 C.SEP
SOURCE OUT 1 V
Q002 VIDEO BUFF
Q004,005,006 SYNC DETECTOR
TO FT-32 BOARD W001
INPUT SELECT
(See page 62.)
Q003 VIDEO BUFF
IC006 VIDEO AMP
CNJ002 SOURCE IN 2 V
CNJ002 SOURCE OUT 2 V
Q018 VIDEO BUFF
IC900 FADER
Q903 B/W SW
IC902 WIPE SWITCHING
Q115 INT SYNC SW
(See page 29.)
TO CY-2 BOARD
CHROMA
Y
(See page 32.)
MAIN VIDEO
Q901 VIDEO BUFF
Q902 BLANK BUFF
Q904 VIDEO BUFF
Q906 BUFF
Q909 VIDEO BUFF
Q907,908 —CLAMP—
TO SA-25 BOARD CN104
W104 2P (WHT)
(See page 47.)
FADER WHITE CONTROL
IC851 FADER CONTROL
Q912,913 VIDEO BUFF
Q915,916 6dB AMP
IC906 VIDEO AMP
Q914 6 dB AMP
TO WC-3 BOARD W901
B/W DETECT
FADER ON/OFF
(See page 62.)
PROCESSED OUT V
IC904 LATCH
FADER CONTROL
Q910 CLAMP
Q917 VIDEO MUTE
CHASSIS GND
(See page 32.) TO CY-2(2/2) BOARD
D.C ON/OFF
W/N
N/P
TO FT-32 BOARD W902
(See page 63.)
IC904
IC905
TO WC-3 BOARD W903
(See page 62.)
Q911 CLUMP
W601 6P (WHT)
W602 6P (WHT)
CN101 4P (WHT)
+9V
+5V
GND
-5V


K
L
M
N
O
TO WC-3 BOARD W903
(See page 62.)
CN903 5P (WHT)
+5V
CC W/N
GND
CC ON/OFF
-5V
TO SA-25 BOARD CN106
(See page 50.)
W106 11P (WHT)
B.C
GND
CLMP2
GND
CLMP3
V BLNK
GND
BLNK
BC/LINE
GND
VIDEO ART
TO CY-2 BOARD
B.S OUT
Y
(See pages 29, 32.)
Q911 CLUMP
IC905
FADER CONTOL
CN101 4P (WHT)
+9V
+5V
GND
-5V
CY-2 BOARD(FADER, I/O, INT SYNC)
CN904 4P (RED)
ART REVERCE
ART MIN
ART CONTROL
ART MAX
CN905 14P (WHT)
MAIN SYNC BURST
B.C SYNC BURST
LINE SYNC BURST
LINE/INT CONT
PAINT REVERCE
-5V
GND
CLMP 2
Y
PAINT REVERCE
+5V
PAINT PULSE
GND
ART LEVEL
ART LEVEL
TP901
IC901
IC901 TC4053BPHB
VIDEO ART REVERSE
IC907
IC907 μPC319C
VIDEO ART LEVEL
VIDEO ART CONTROL LEVEL
RV905 10k
VIDEO ART CLUMP LEVEL
RV904 2200
TP902
DC ART
Q920 SYNC BUFF
Q922 VIDEO BUFF
Q923 CLAMP
Q924,925 —VIDEO ART REVERSE—
Q926,927 —VIDEO BUFF—
VP-8 BOARD

VIDEO (2) VIDEO (2)

XV-C700


14
15
16
17
18
19
20
21
22
A
B
C
D
E
F
G
H
I
J
K
Q007
INT SYNC DRIVE
Q008
VCO BUFF
Q009,016
BLK BURST BUFF
Q010
VIDEO BUFF
Q011
CLAMP
Q012
VIDEO BUFF
Q013
Y SEP
Q014
C.SEP
IC009
INT SYNC
IC009 CX20061
IC008
INT SYNC
IC008 CX-7930A
INT SYNC
VCO ADJ
INT SYNC
fsc ADJ
SHIELD CASE
Q115
INT SYNC SW
CNJ001
CNJ002
CNJ003
CNJ004
CNJ005
SOURCE IN 1 L
SOURCE OUT 1 L
SOURCE OUT 1 R
SOURCE IN 1 R
SOURCE IN 2 L
SOURCE OUT 2 L
SOURCE OUT 2 R
SOURCE IN 2 R
CHASSIS GND
W601 6P (WHT)
SOURCE IN 1CHL
SOURCE OUT 1CHL
SOURCE 1CHL GND
SOURCE 1CHR GND
SOURCE OUT 1CHR
SOURCE IN 1CHR
TO SA-25 BOARD CN601
(See page 55.)
W602 6P (WHT)
SOURCE IN 2CHL
SOURCE OUT 2CHL
SOURCE 2CHL GND
SOURCE 2CHR GND
SOURCE OUT 2CHR
SOURCE IN 2CHR
TO SA-25 BOARD CN602
(See page 55.)
LINE IN L
W603 4P (WHT)
LINE IN L
LINE IN L GND
LINE IN R GND
LINE IN R
TO SA-25 BOARD CN603
(See page 55.)
INVERSE OUT L
INVERSE OUT R
W606 4P (WHT)
INVERCE OUT L
INVERCE OUT L GND
INVERCE OUT R GND
INVERCE OUT R
TO SA-25 BOARD CN606
(See page 57.)
PROCESSED OUT L1
PROCESSED OUT L2
PROCESSED OUT R1
PROCESSED OUT R2
W610 6P (WHT)
PROCESSED OUT L1
PROCESSED OUT L2
PROCESSED OUT L GND
PROCESSED OUT R GND
PROCESSED OUT R1
PROCESSED OUT R2
TO SA-25 BOARD CN610
(See page 57.)
+9V
+5V
TO CY-2 BOARD
(See page 29.)
CN101 4P (WHT)
+9V
+5V
GND
-5V
TO PW-51 BOARD W101
(See page 68.)
-5V
TO CY-2 BOARD
(See page 29.)
CY-2 BOARD IC904
TC74HC174P
Vcc
Q6
D6
D5
Q5
D4
Q4
CLOCK

Note:

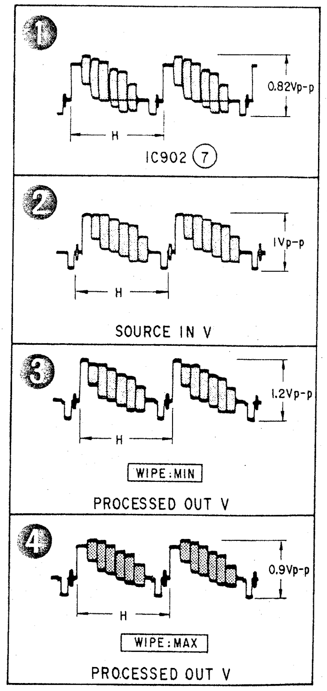
- All resistors are in ohms, 1/4W unless otherwise noted. kΩ: 1000Ω, MΩ: 1000kΩ.
- All capacitors are in μF unless otherwise noted. pF : μμF. 50V or less are not indicated except for electrolytics. and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- ▭ : panel designation.
- △ : internal component.
- ▭ : adjustment for repair.
- ——— : B + bus.
- - - - : B − bus.
- ⇨ : IN/OUT direction of +B, −B bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltage variations may be noted due to normal production tolerances.
- Voltage and waveform measuring conditions.
  Receive an PAL color bar signal on SOURCE VIDEO 1 terminal.

INPUT SELECT SWITCH	: 1
VIDEO ART VOLUME	: MAX
REVERSE SWITCH	: OFF
REVERSE (NEGA/POSI) SWITCH	: OFF
COLOR SELECT SWITCH	: COLOR BAR
WIPE PATTERN ◨	: ON
WIPE PATTERN ◧	: ON
WIPE PATTERN ⬒	: ON
WIPE PATTERN ⬓	: ON
WIPE KNOB	: MIN
COLOR CORRECT SWITCH	: ON
WIDE RANGE SWITCH	: OFF
FADER VIDEO SWITCH	: ON
FADER AUDIO SWITCH	: ON
WHITE CLIP SWITCH	: ON

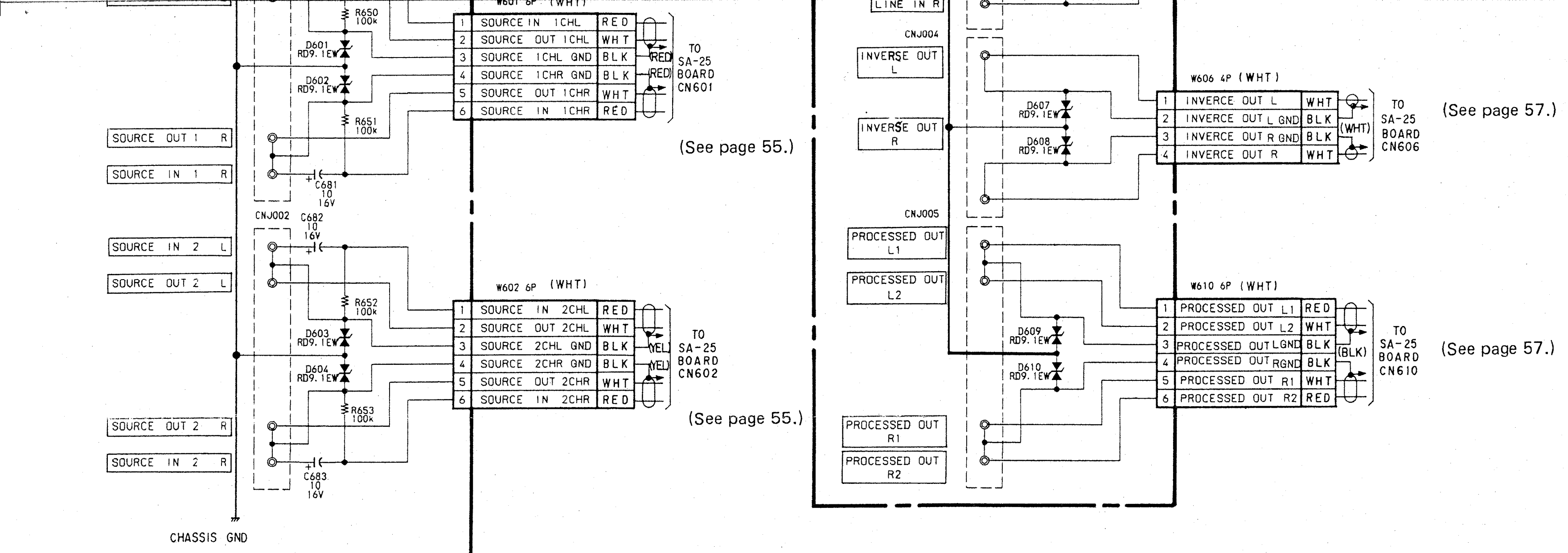
Set the control knob to the mechanical center position unless otherwise noted.

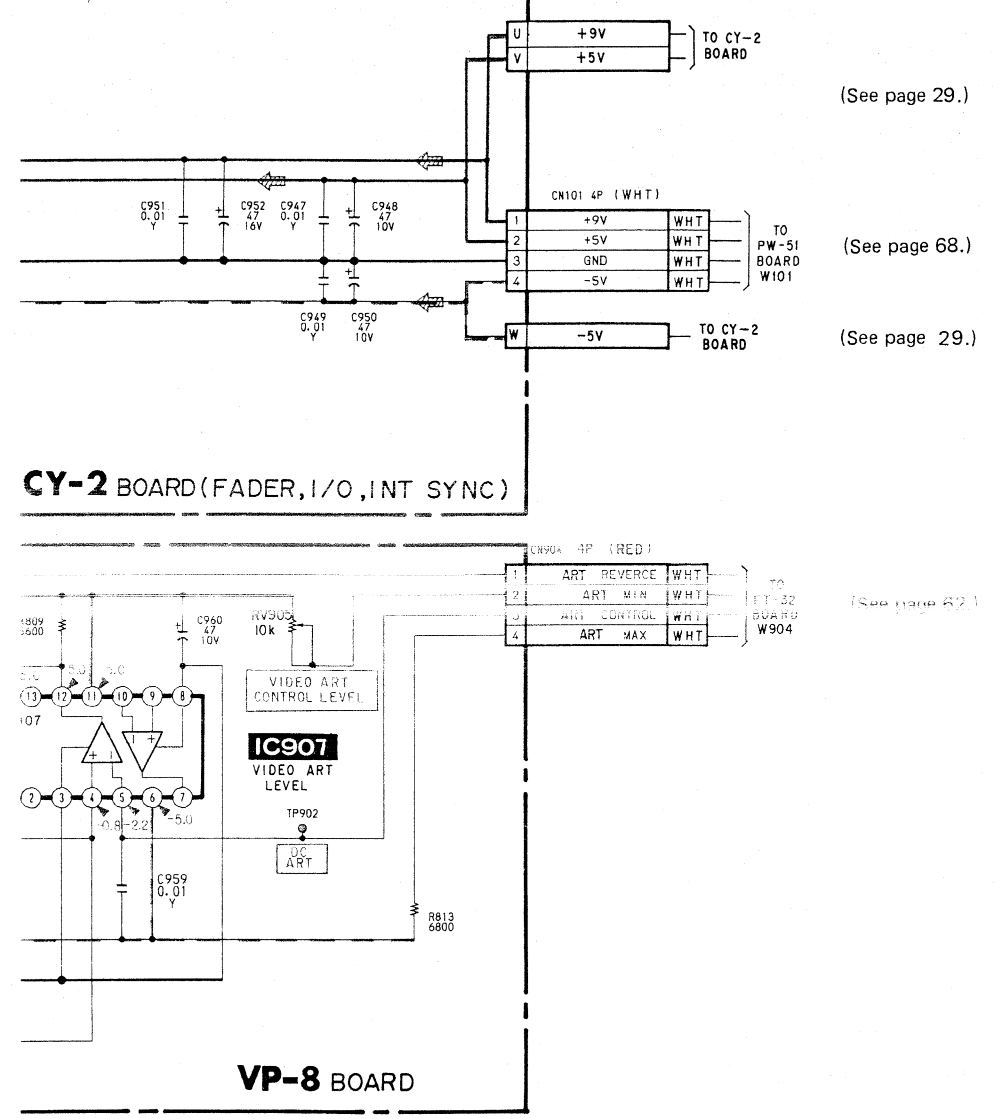
When indicating parts by reference number, please include the board name.

CY-2 BOARD

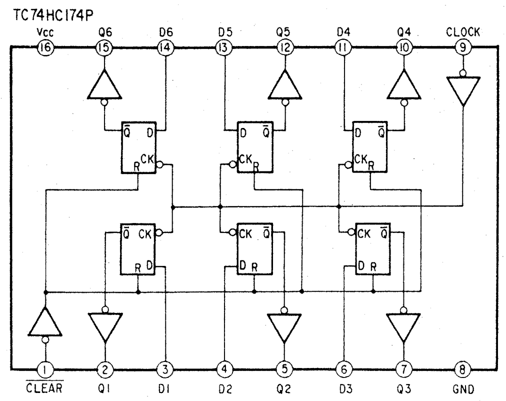


ence number, please include the board name.


W601 6P (WHT)
SOURCE IN 1CHL RED
SOURCE OUT 1CHL WHT
SOURCE 1CHL GND BLK
SOURCE 1CHR GND BLK
SOURCE OUT 1CHR WHT
SOURCE IN 1CHR RED
TO SA-25 BOARD CN601
(See page 55.)
SOURCE OUT 1 R
SOURCE IN 1 R
SOURCE IN 2 L
SOURCE OUT 2 L
SOURCE OUT 2 R
SOURCE IN 2 R
CNJ002
W602 6P (WHT)
SOURCE IN 2CHL RED
SOURCE OUT 2CHL WHT
SOURCE 2CHL GND BLK
SOURCE 2CHR GND BLK
SOURCE OUT 2CHR WHT
SOURCE IN 2CHR RED
TO SA-25 BOARD CN602
(See page 55.)
CHASSIS GND
LINE IN R
CNJ004
INVERSE OUT L
INVERSE OUT R
W606 4P (WHT)
INVERCE OUT L WHT
INVERCE OUT L GND BLK
INVERCE OUT R GND BLK
INVERCE OUT R WHT
TO SA-25 BOARD CN606
(See page 57.)
CNJ005
PROCESSED OUT L1
PROCESSED OUT L2
PROCESSED OUT R1
PROCESSED OUT R2
W610 6P (WHT)
PROCESSED OUT L1 RED
PROCESSED OUT L2 WHT
PROCESSED OUT L GND BLK
PROCESSED OUT R GND BLK
PROCESSED OUT R1 WHT
PROCESSED OUT R2 RED
TO SA-25 BOARD CN610
(See page 57.)


+9V
+5V
TO CY-2 BOARD
(See page 29.)
CN101 4P (WHT)
+9V WHT
+5V WHT
GND WHT
-5V WHT
TO PW-51 BOARD W101
(See page 68.)
-5V
TO CY-2 BOARD
(See page 29.)
CY-2 BOARD (FADER, I/O, INT SYNC)
CN904 4P (RED)
ART REVERCE WHT
ART MIN WHT
ART CONTROL WHT
ART MAX WHT
TO FT-32 BOARD W904
(See page 62.)
RV905 10k
VIDEO ART CONTROL LEVEL
IC907 VIDEO ART LEVEL
TP902
DC ART
R813 6800
VP-8 BOARD

CY-2 BOARD IC904


TC74HC174P
Vcc
Q6
D6
D5
Q5
D4
Q4
CLOCK
CLEAR
Q1
D1
D2
Q2
D3
Q3
GND

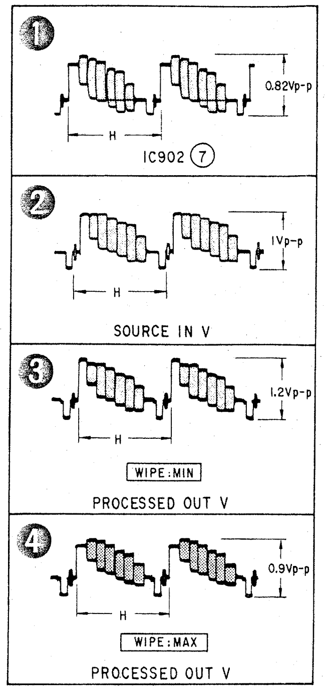
- **Signal path**

⇨ : Y Signal

⇨ : CHROMA Signal

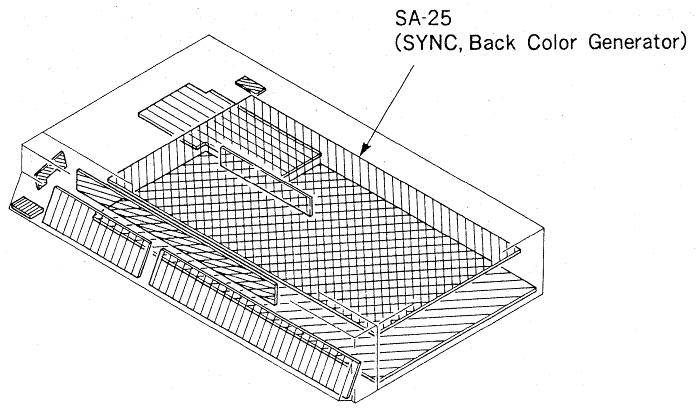
⇨ : Y/CHROMA Signal

CY-2 BOARD



Note:
- ● ○-- : indicates a lead wire mounted on the component side.
- ● ●- : indicates a lead wire mounted on the printed side.
- ● ▨ : soldering side.

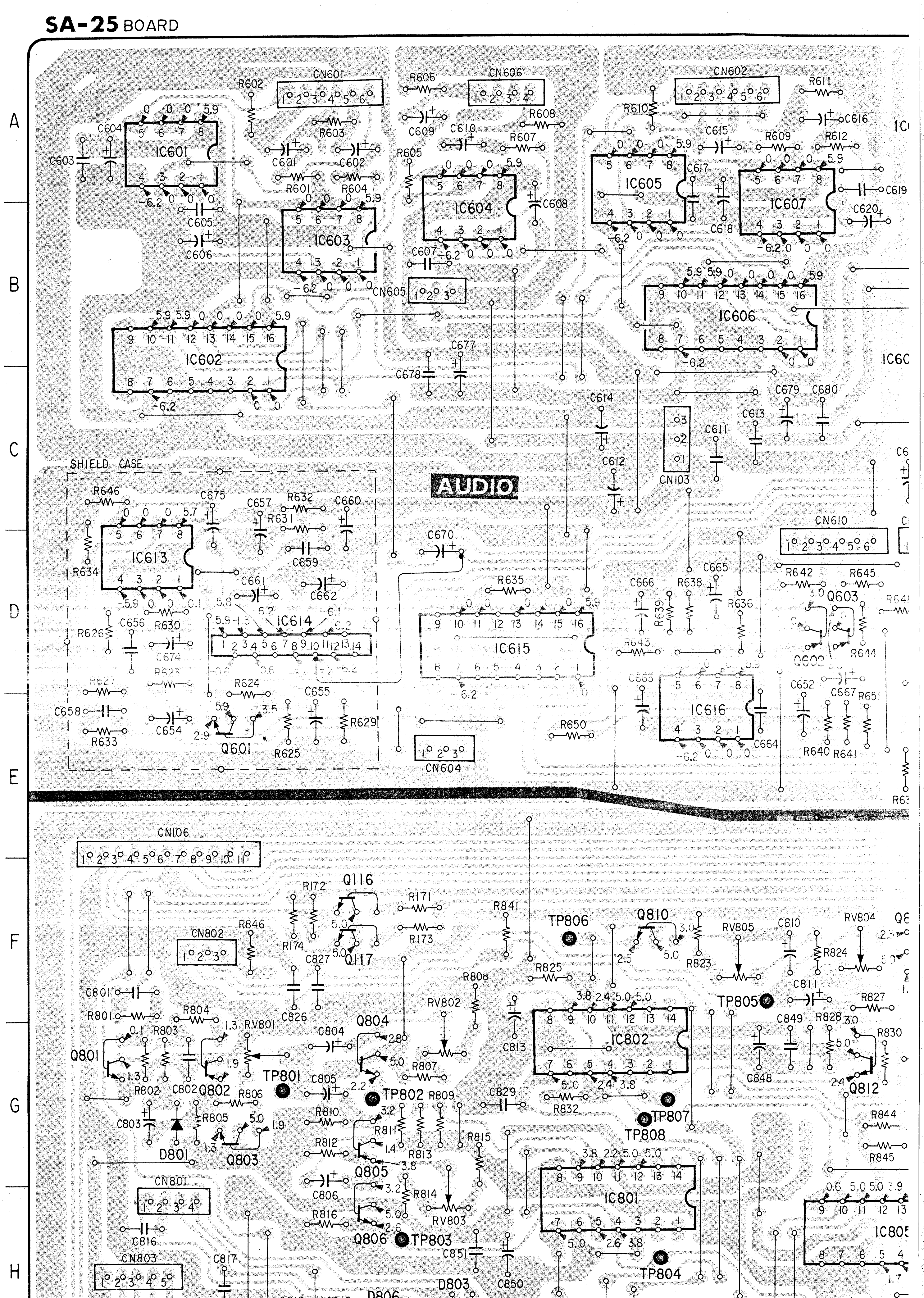
When indicating parts by reference number, please include the board name.

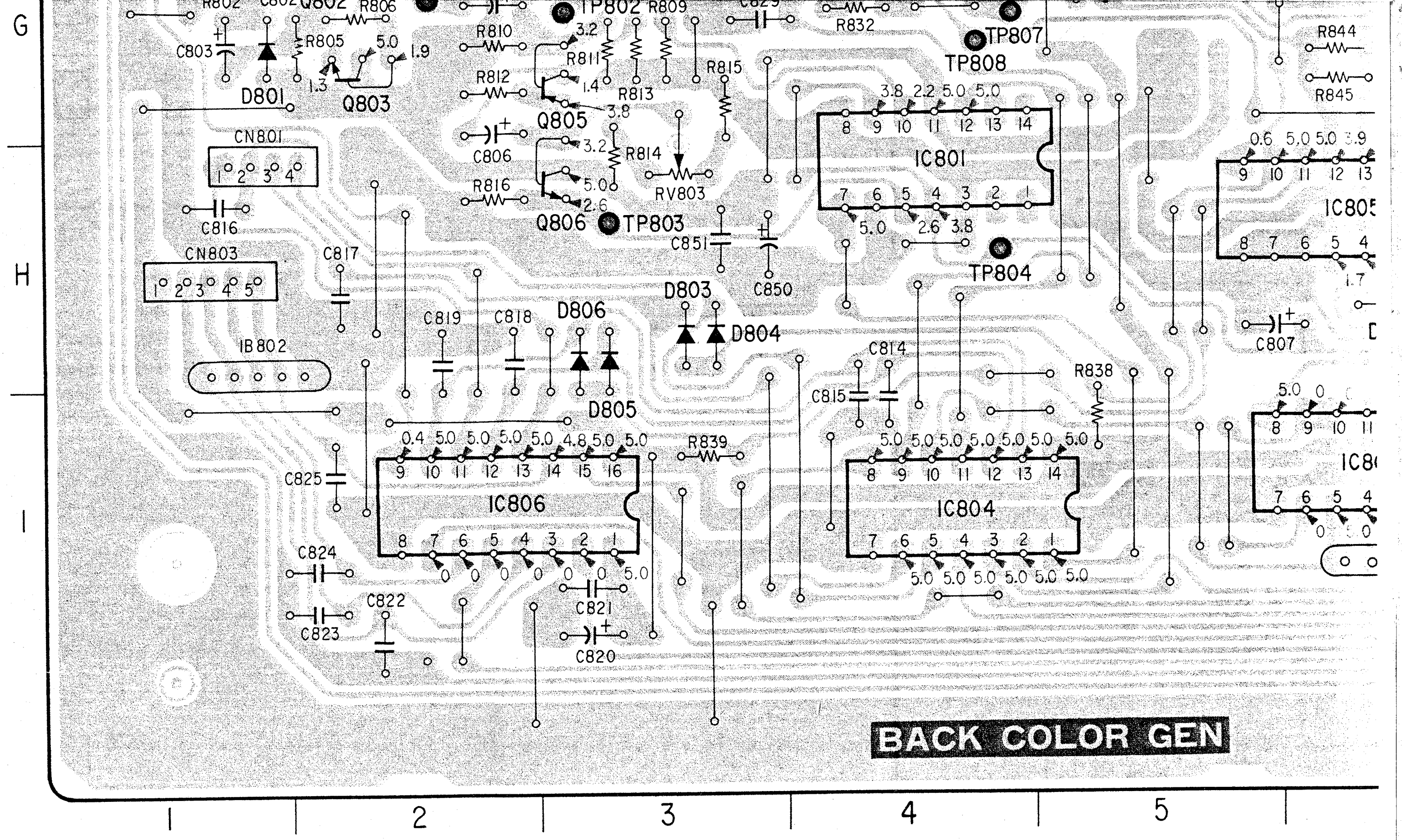

SA-25
(SYNC, Back Color Generator)

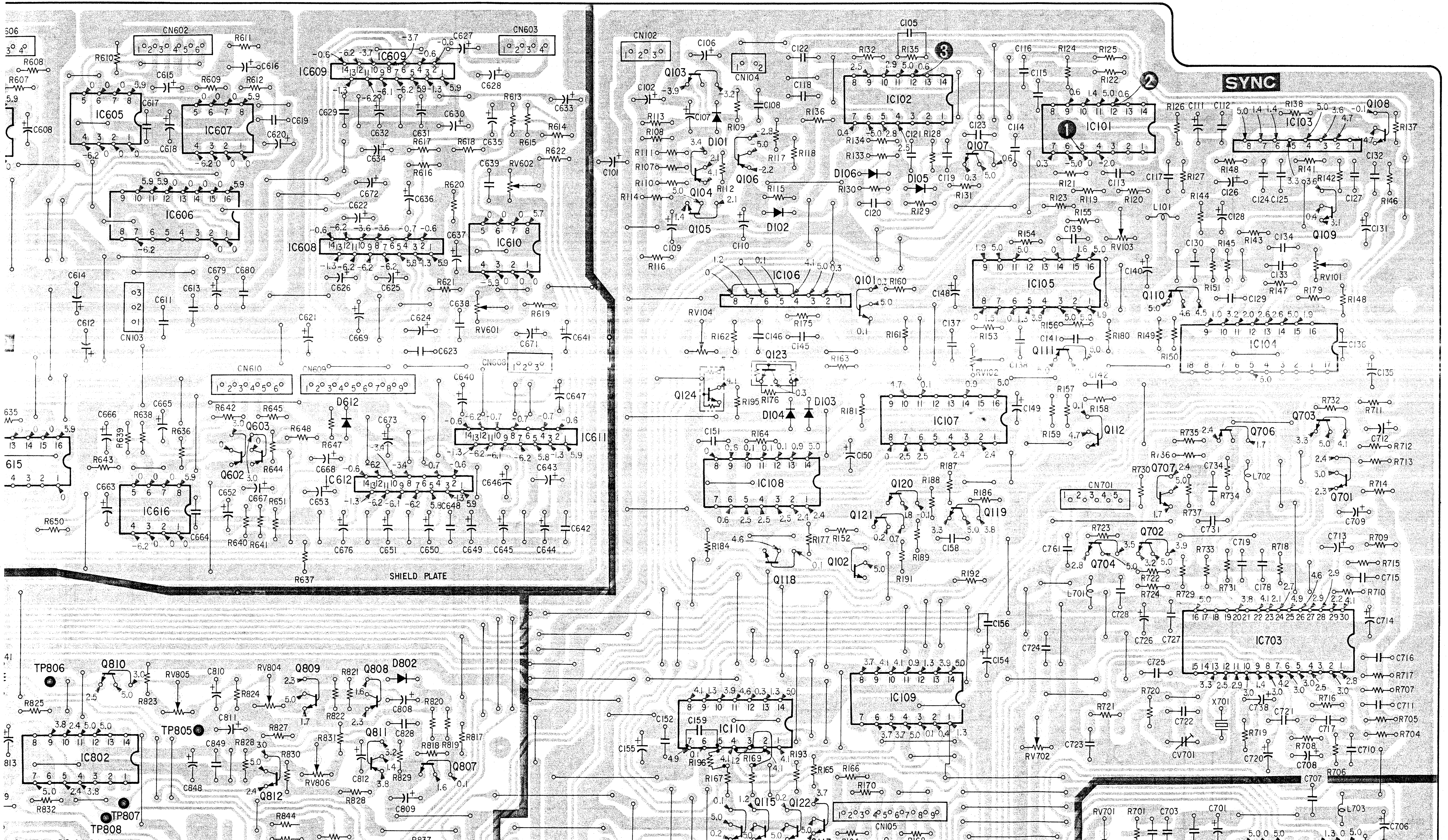
CN102	A-9
CN103	C-4
CN104	A-9
CN105	F-11
CN106	E-1
CN601	A-2
CN602	A-5
CN603	A-8
CN604	E-3
CN605	B-3
CN606	C-1
CN608	C-8
CN609	C-6
CN610	C-5
CN701	D-12
CN801	G-1
CN802	F-2
CN803	H-1
CV701	F-13
D101	B-9
D102	B-10
D103	E-10
D104	E-10
D105	B-11
D106	B-10
D612	D-6
D701	H-6
D801	G-1
D802	F-7
D803	H-3
D804	H-3
D805	I-6
D806	H-3
IC101	A-12
IC102	A-11
IC103	A-14
IC104	C-14
IC105	C-12
IC106	C-10
IC107	D-11
IC108	D-10
IC109	F-11
IC110	F-9
IC601	A-1
IC602	B-1
IC603	B-2
IC604	B-3
IC605	A-4
IC606	B-5
IC607	A-5
IC608	B-6
IC609	A-7
IC610	B-8
IC611	D-8
IC612	D-7
IC613	D-1
IC614	D-2
IC615	D-3
IC616	E-5
IC701	H-13
IC702	G-14
IC703	F-14
IC704	I-8
IC705	I-14
IC706	H-10
IC801	H-4
IC802	G-4
IC803	I-6
IC804	I-4
IC805	H-6
IC806	I-2
Q101	C-10
Q102	E-10
Q103	A-9
Q104	B-9
Q105	B-9
Q106	B-9
Q107	B-11
Q108	A-14
Q109	B-14
Q110	C-13
Q111	C-12
Q112	E-12
Q113	G-10
Q114	G-9
Q115	G-10
Q116	F-2
Q117	F-2
Q118	E-10
Q119	E-12
Q120	D-11
Q121	E-10
Q122	G-10
Q123	C-10
Q124	D-9
Q601	E-2
Q602	D-5
Q603	D-5
Q701	D-14
Q702	E-13
Q703	D-14
Q704	E-12
Q705	H-13
Q706	D-14
Q707	D-13
Q708	I-8
Q709	I-14
Q710	H-14
Q711	I-14
Q712	I-12
Q713	I-10
Q714	I-10
Q715	I-9
Q716	I-7
Q801	G-1
Q802	G-2
Q803	G-2
Q804	F-3
Q805	G-3
Q806	H-3
Q807	G-7
Q808	F-6
Q809	F-6
Q810	F-4
Q811	F-6
Q812	G-6
RV101	C-14
RV102	C-11
RV103	B-13
RV104	C-9
RV601	C-7
RV602	B-8
RV701	G-12
RV702	F-12
RV703	I-12
RV704	H-8
RV705	
RV706	I-8
RV801	G-2
RV802	F-3
RV803	H-3
RV804	F-6
RV805	F-5
RV806	[illegible]
TP801	G-2
TP802	G-3
TP803	H-3
TP804	H-4
TP805	F-5
TP806	F-4
TP807	G-4
TP808	G-4

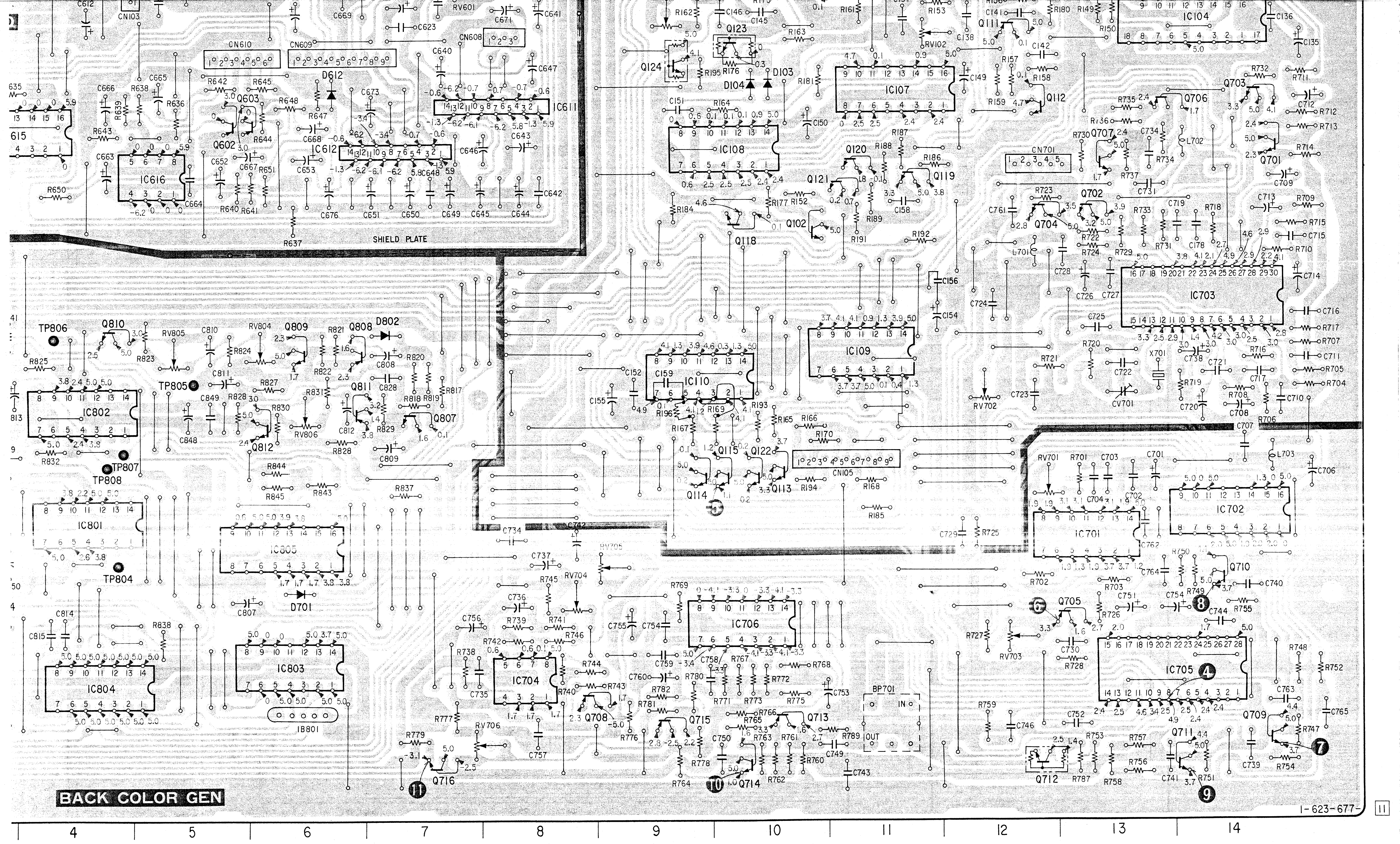
SA-25 (SYNC, BACK COLOR GENERATOR) PRINTED WIRING BOARD

—Ref. No. SA-25 BOARD : 3, 000 series—


SA-25 BOARD
A
B
C
D
E
F
G
H
CN601
CN606
CN602
IC601
IC603
IC604
IC605
IC607
CN605
IC602
IC606
SHIELD CASE
AUDIO
CN103
CN610
IC613
IC614
IC615
IC616
Q601
Q602
Q603
CN604
CN106
CN802
Q116
Q117
TP806
Q810
RV805
RV804
TP805
IC802
Q801
Q802
Q803
Q804
Q805
Q806
RV801
RV802
RV803
TP801
TP802
TP803
TP804
TP807
TP808
D801
Q812
CN801
IC801
CN803
IC805
D803
D806


G
H
I
1
2
3
4
5
R802
C802
Q802
R806
TP802
R809
C829
R832
TP807
TP808
R844
R845
C803
D801
R805
Q803
R810
R811
R812
R813
R815
Q805
C806
R814
RV803
R816
Q806
TP803
C851
C850
TP804
CN801
C816
CN803
C817
IB802
C819
C818
D806
D805
D803
D804
C814
C815
R838
IC801
IC805
C807
IC806
IC804
R839
C825
C824
C822
C823
C821
C820
BACK COLOR GEN


SYNC
SHIELD PLATE
CN602
CN603
CN102
CN104
CN103
CN610
CN609
CN608
CN701
CN105
IC601
IC605
IC606
IC607
IC608
IC609
IC610
IC611
IC612
IC615
IC616
IC101
IC102
IC103
IC104
IC105
IC106
IC107
IC108
IC109
IC110
IC703
IC802
Q101
Q102
Q103
Q104
Q105
Q106
Q107
Q108
Q109
Q110
Q111
Q112
Q115
Q118
Q119
Q120
Q121
Q122
Q123
Q124
Q602
Q603
Q701
Q702
Q703
Q704
Q706
Q707
Q807
Q808
Q809
Q810
Q811
Q812
D101
D102
D103
D104
D105
D106
D612
D802
RV101
RV102
RV103
RV104
RV601
RV602
RV701
RV702
RV804
RV805
RV806
L101
L701
L702
L703
X701
CV701
TP805
TP806
TP807
TP808

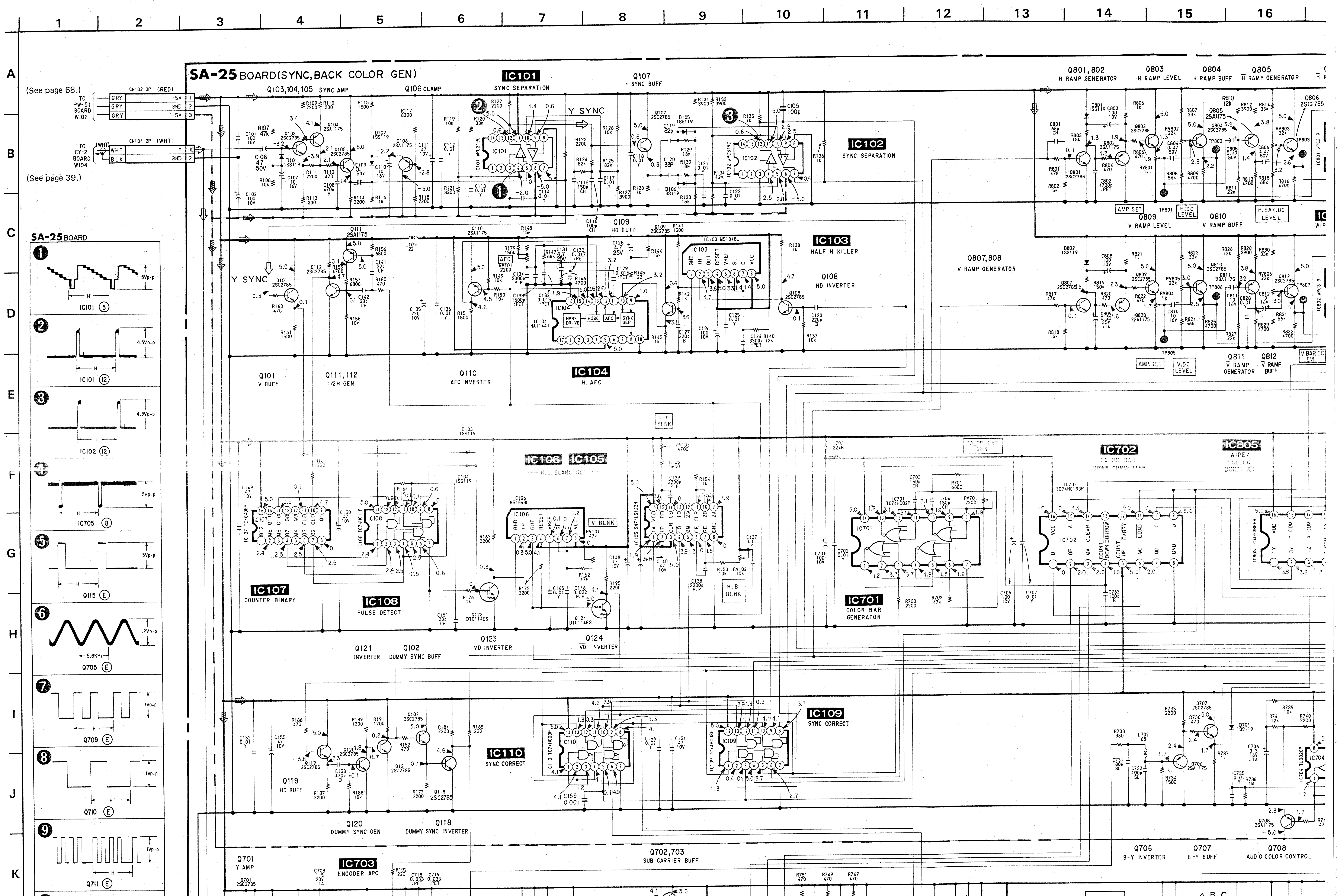


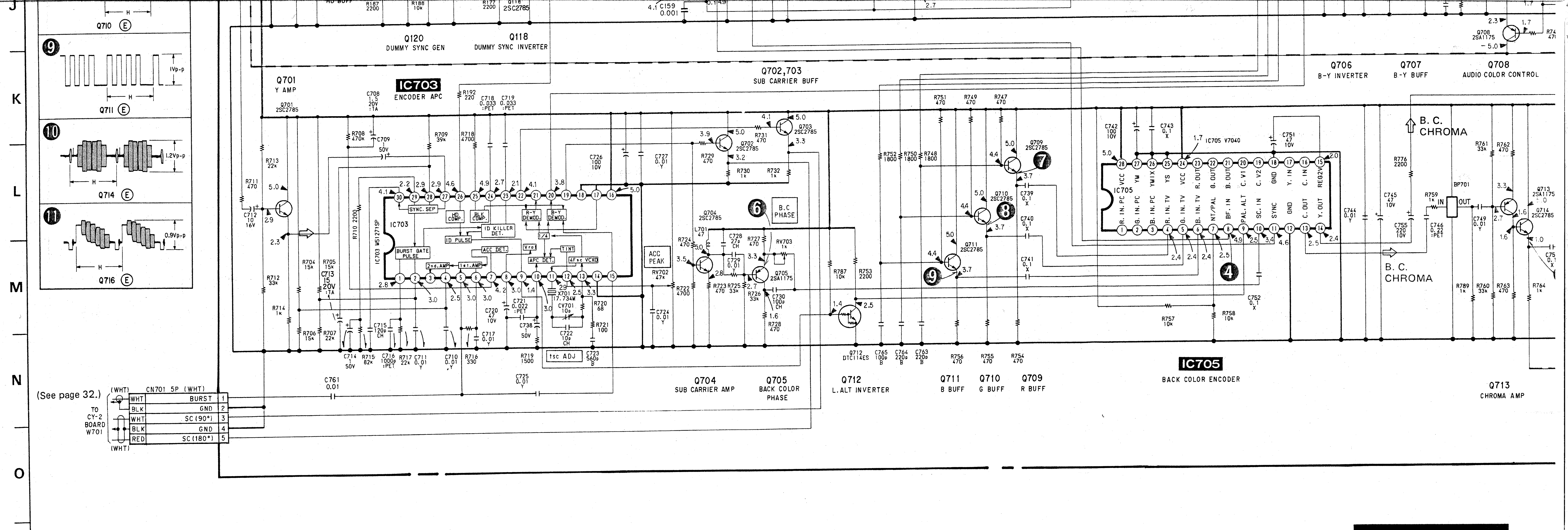
CN610
CN609
CN608
CN103
IC611
IC612
IC616
IC615
SHIELD PLATE
IC104
IC107
IC108
IC109
IC110
CN105
CN701
IC703
IC702
IC701
IC705
IC706
IC704
IC801
IC802
IC803
IC804
IC805
IB801
BP701
IN
OUT
TP804
TP805
TP806
TP807
TP808
D612
D103
D104
D701
D802
Q102
Q111
Q112
Q113
Q114
Q115
Q118
Q119
Q120
Q121
Q122
Q123
Q124
Q602
Q603
Q701
Q702
Q703
Q704
Q705
Q706
Q707
Q708
Q709
Q710
Q711
Q712
Q713
Q714
Q715
Q716
Q807
Q808
Q809
Q810
Q811
Q812
RV102
RV601
RV701
RV702
RV703
RV704
RV705
RV706
RV804
RV805
RV806
X701
CV701
L701
L702
L703
BACK COLOR GEN
1-623-677-
11
4
5
6
7
8
9
10
11
12
13
14

VIDEO (3) VIDEO (3)

SA-25 (SYNC, BACK COLOR GENERATOR) SCHEMATIC DIAGRAM

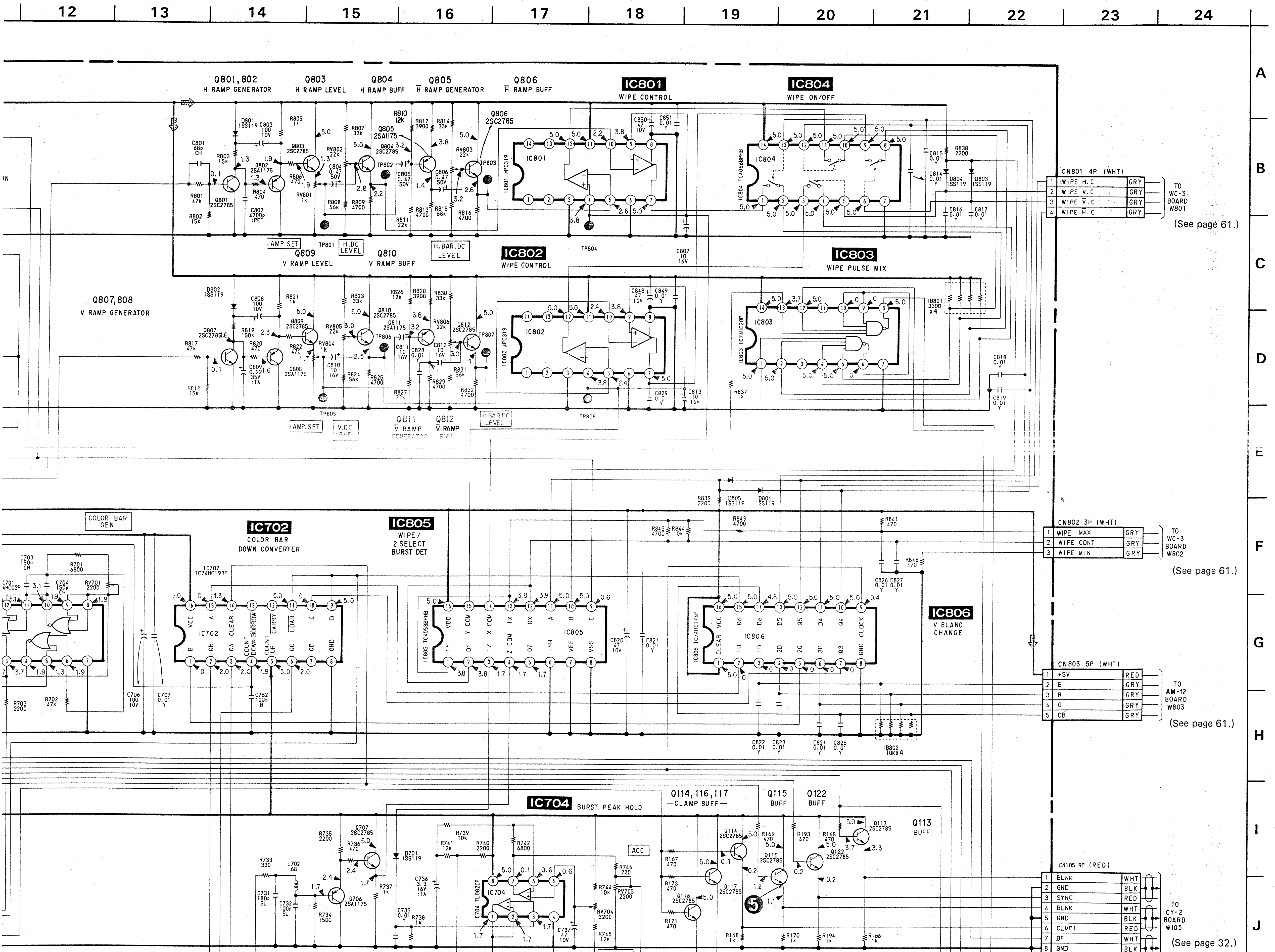
—Ref. No. SA-25 BOARD : 3, 000 series—


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
A B C D E F G H I J K
SA-25 BOARD(SYNC, BACK COLOR GEN)
(See page 68.)
TO PW-51 BOARD W102
CN102 3P (RED)
+5V GND -5V
TO CY-2 BOARD W104
CN104 2P (WHT)
Y GND
(See page 39.)
Q103,104,105 SYNC AMP
Q106 CLAMP
IC101 SYNC SEPARATION
Q107 H SYNC BUFF
Y SYNC
IC102 SYNC SEPARATION
Q801,802 H RAMP GENERATOR
Q803 H RAMP LEVEL
Q804 H RAMP BUFF
Q805 H RAMP GENERATOR
AMP SET
H.DC LEVEL
H.BAR.DC LEVEL
Q809 V RAMP LEVEL
Q810 V RAMP BUFF
Q109 HD BUFF
IC103 HALF H KILLER
Q108 HD INVERTER
Q807,808 V RAMP GENERATOR
Q101 V BUFF
Q111,112 1/2H GEN
Q110 AFC INVERTER
IC104 H. AFC
AMP.SET
V.DC LEVEL
Q811 V RAMP GENERATOR
Q812 V RAMP BUFF
V.BAR.DC LEVEL
H.F BLNK
IC106 IC105 H.D. BLANC SET
V BLNK
H.B BLNK
COLOR BAR GEN
IC702 COLOR BAR DOWN CONVERTER
IC805 WIPE/2 SELECT BURST DET
IC107 COUNTER BINARY
IC108 PULSE DETECT
Q123 VD INVERTER
Q124 VD INVERTER
IC701 COLOR BAR GENERATOR
Q121 INVERTER
Q102 DUMMY SYNC BUFF
IC109 SYNC CORRECT
IC110 SYNC CORRECT
Q119 HD BUFF
Q120 DUMMY SYNC GEN
Q118 DUMMY SYNC INVERTER
Q701 Y AMP
IC703 ENCODER APC
Q702,703 SUB CARRIER BUFF
Q706 B-Y INVERTER
Q707 B-Y BUFF
Q708 AUDIO COLOR CONTROL
SA-25 BOARD
❶ 5Vp-p H IC101 ⑤
❷ 4.5Vp-p H IC101 ⑫
❸ 4.5Vp-p H IC102 ⑫
❹ 5Vp-p H IC705 ⑧
❺ 5Vp-p H Q115 Ⓔ
❻ 1.2Vp-p 15.6KHz Q705 Ⓔ
❼ 1Vp-p H Q709 Ⓔ
❽ 1Vp-p H Q710 Ⓔ
❾ 1Vp-p H Q711 Ⓔ


J
K
L
M
N
O
Q710 Ⓔ
⑨ 1Vp-p
Q711 Ⓔ
⑩ 1.2Vp-p
Q714 Ⓔ
⑪ 0.9Vp-p
Q716 Ⓔ
Q120
DUMMY SYNC GEN
Q118
DUMMY SYNC INVERTER
Q701
Y AMP
IC703
ENCODER APC
IC703 M51271SP
SYNC. SEP
BURST GATE PULSE
ID PULSE
ID KILLER DET.
ACC DET.
2nd. AMP
1st. AMP
HD COMP.
BLK COMP.
R-Y DEMOD.
B-Y DEMOD.
APC DET.
TINT
4Fsc VCXO
fsc ADJ
ACC PEAK
RV702 47k
X701 17.734M
Q702,703
SUB CARRIER BUFF
Q704
SUB CARRIER AMP
Q705
BACK COLOR PHASE
⑥ B.C PHASE
Q712
L.ALT INVERTER
Q711
B BUFF
Q710
G BUFF
Q709
R BUFF
⑦
⑧
⑨
④
IC705
BACK COLOR ENCODER
IC705 V7040
VCC
YM
YMIX
YS
VCC
R. OUT
G. OUT
B. OUT
C. V1
C. V2
GND
Y. IN
C. IN
REG2V
R. IN. PC
G. IN. PC
B. IN. PC
R. IN. TV
G. IN. TV
B. IN. TV
NT/PAL
BF. IN
PAL. ALT
SC. IN
SYNC
GND
C. OUT
Y. OUT
B. C. CHROMA
B. C. CHROMA
BP701
IN
OUT
Q706
B-Y INVERTER
Q707
B-Y BUFF
Q708
AUDIO COLOR CONTROL
Q713
CHROMA AMP
Q714 2SC2785
(See page 32.)
TO CY-2 BOARD W701
CN701 5P (WHT)
WHT BURST 1
BLK GND 2
WHT SC(90°) 3
BLK GND 4
RED SC(180°) 5

VIDEO (3)   VIDEO (3)

XV-C700


12
13
14
15
16
17
18
19
20
21
22
23
24
A
B
C
D
E
F
G
H
I
J
Q801, 802 H RAMP GENERATOR
Q803 H RAMP LEVEL
Q804 H RAMP BUFF
Q805 H̄ RAMP GENERATOR
Q806 H̄ RAMP BUFF
IC801 WIPE CONTROL
IC804 WIPE ON/OFF
CN801 4P (WHT)
WIPE H.C
WIPE V.C
WIPE V̄.C
WIPE H̄.C
GRY
TO WC-3 BOARD W801
(See page 61.)
AMP SET
H.DC LEVEL
H.BAR.DC LEVEL
Q809 V RAMP LEVEL
Q810 V RAMP BUFF
IC802 WIPE CONTROL
IC803 WIPE PULSE MIX
Q807,808 V RAMP GENERATOR
AMP.SET
V.DC LEVEL
Q811 V̄ RAMP GENERATOR
Q812 V̄ RAMP BUFF
V.BAR.DC LEVEL
COLOR BAR GEN
IC702 COLOR BAR DOWN CONVERTER
IC805 WIPE/ 2 SELECT BURST DET
IC806 V BLANC CHANGE
CN802 3P (WHT)
WIPE MAX
WIPE CONT
WIPE MIN
TO WC-3 BOARD W802
(See page 61.)
CN803 5P (WHT)
+5V
B
R
G
CB
RED
TO AM-12 BOARD W803
(See page 61.)
IC704 BURST PEAK HOLD
ACC
Q114, 116, 117 —CLAMP BUFF—
Q115 BUFF
Q122 BUFF
Q113 BUFF
CN105 9P (RED)
BLNK
GND
SYNC
CLMP1
BF
WHT
BLK
TO CY-2 BOARD W105
(See page 32.)

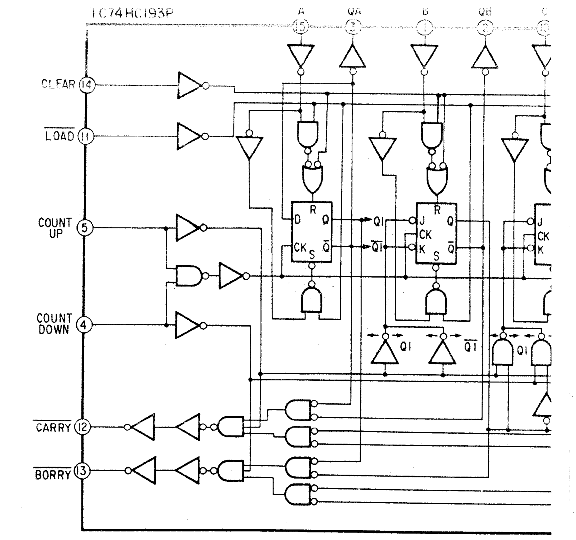
Note:

- All resistors are in ohms, 1/4W unless otherwise noted. kΩ: 1000Ω, MΩ: 1000kΩ.
- All capacitors are in μF unless otherwise noted. pF : μμ 50V or less are not indicated except for electrolytics. and tantalums.
- All variable and adjustable resistors have characteristic unless otherwise noted.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- ▭ : panel designation.
- △ : internal component.
- ▭ : adjustment for repair.
- ━━ : B + bus.
- ╍╍ : B – bus.
- ⇨ : IN/OUT direction of +B, –B bus.
- Voltages are dc with respect to ground unless otherwise
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltage variations may be noted due to normal pr tolerances.
- Voltage and waveform measuring conditions.
  Receive an PAL color bar signal on SOURCE VIDEO 1 ter

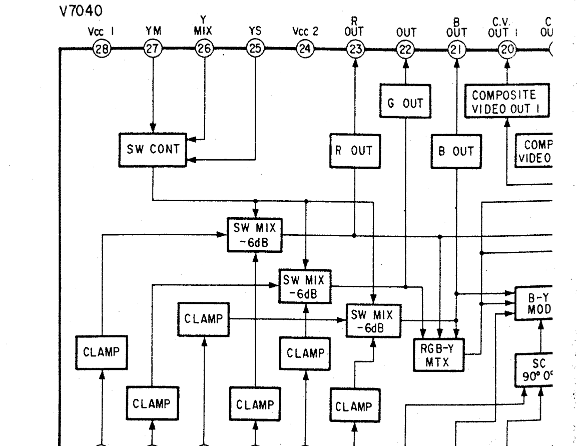
INPUT SELECT SWITCH	: 1
VIDEO ART VOLUME	: MAX
REVERSE SWITCH	: OFF
REVERSE (NEGA/POSI) SWITCH	: OFF
COLOR SELECT SWITCH	: COLOR BAR
WIPE PATTERN ◨	: ON
WIPE PATTERN ◧	: ON
WIPE PATTERN ⬓	: ON
WIPE PATTERN ⬒	: ON
WIPE KNOB	: MIN
COLOR CORRECT SWITCH	: ON
WIDE RANGE SWITCH	: OFF
FADER VIDEO SWITCH	: ON
FADER AUDIO SWITCH	: ON
WHITE CLIP SWITCH	: ON

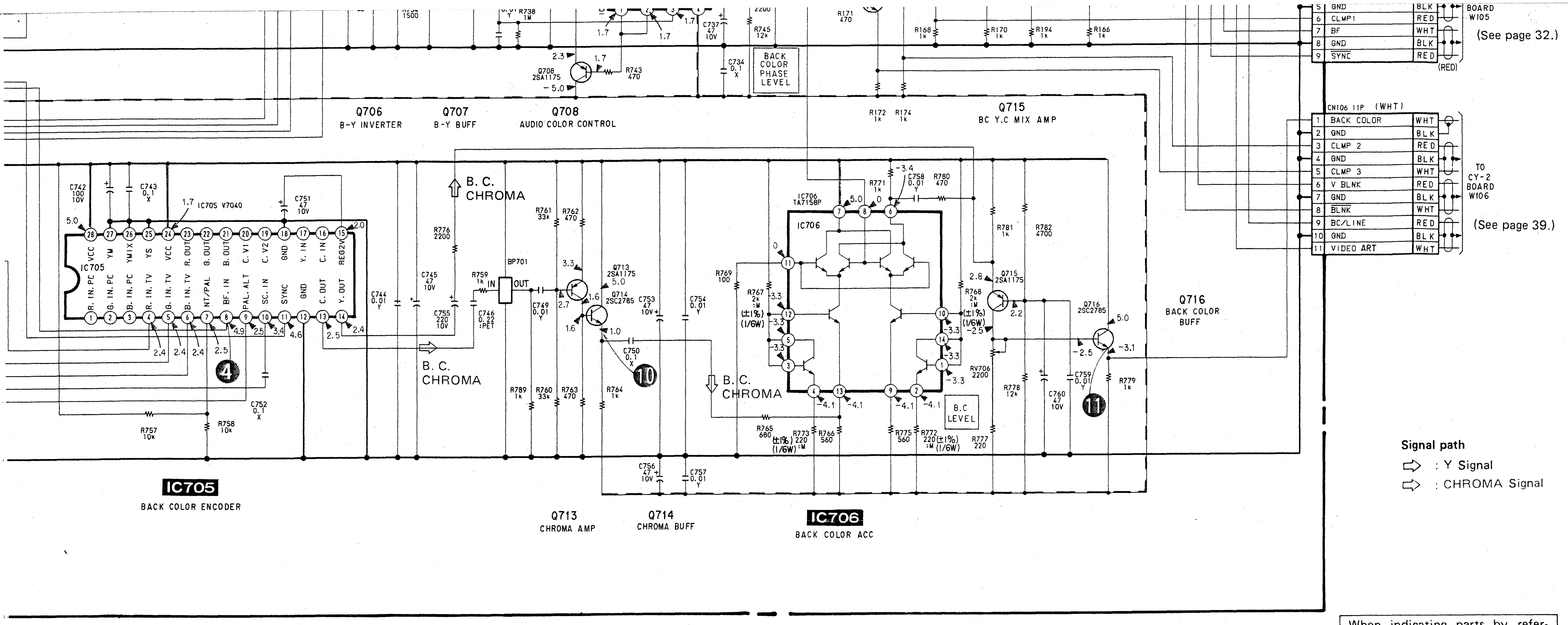
Set the control knob to the mechanical center positio otherwise noted.

SA-25 BOARD IC702

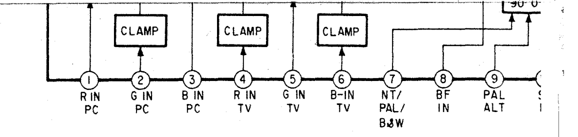

TC74HC193P
A
QA
B
QB
CLEAR
LOAD
COUNT UP
COUNT DOWN
CARRY
BORRY

SA-25 BOARD IC705

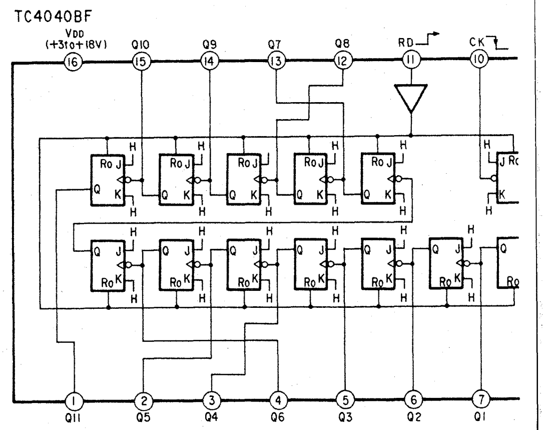

V7040
Vcc 1
YM
Y MIX
YS
Vcc 2
R OUT
OUT
B OUT
C.V OUT 1
SW CONT
G OUT
R OUT
B OUT
COMPOSITE VIDEO OUT 1
SW MIX -6dB
CLAMP
RGB-Y MTX
B-Y MOD


Q706
B-Y INVERTER
Q707
B-Y BUFF
Q708
AUDIO COLOR CONTROL
Q708
2SA1175
BACK
COLOR
PHASE
LEVEL
Q715
BC Y.C MIX AMP
BOARD
W105
(See page 32.)
CN106 11P (WHT)
BACK COLOR
GND
CLMP 2
GND
CLMP 3
V BLNK
GND
BLNK
BC/LINE
GND
VIDEO ART
TO
CY-2
BOARD
W106
(See page 39.)
IC705 V7040
IC705
R. IN. PC
G. IN. PC
B. IN. PC
R. IN. TV
G. IN. TV
B. IN. TV
NT/PAL
BF. IN
PAL. ALT
SC. IN
SYNC
GND
C. OUT
Y. OUT
VCC
YM
YMIX
YS
VCC
R. OUT
G. OUT
B. OUT
C. V1
C. V2
GND
Y. IN
C. IN
REG2V
B. C.
CHROMA
BP701
IN
OUT
Q713
2SA1175
Q714
2SC2785
IC706
TA7158P
IC706
B.C
LEVEL
Q715
2SA1175
Q716
2SC2785
Q716
BACK COLOR
BUFF
IC705
BACK COLOR ENCODER
Q713
CHROMA AMP
Q714
CHROMA BUFF
IC706
BACK COLOR ACC

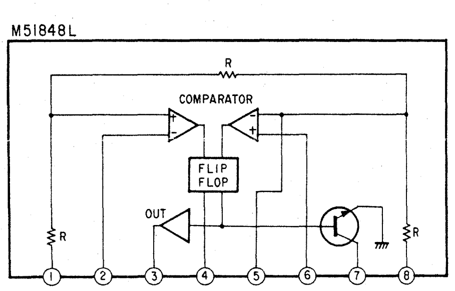
Signal path
⇨ : Y Signal
⇨ : CHROMA Signal


CLAMP
CLAMP
CLAMP
R IN PC
G IN PC
B IN PC
R IN TV
G IN TV
B-IN TV
NT/PAL/B&W
BF IN
PAL ALT

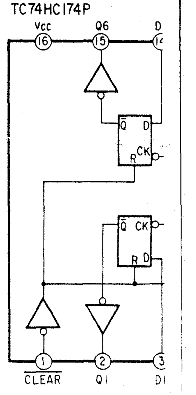
SA-25 BOARD IC107


TC4040BF
VDD (+3to+18V)
Q10
Q9
Q7
Q8
RD
CK
Q11
Q5
Q4
Q6
Q3
Q2
Q1

SA-25 BOARD IC106, IC103


M51848L
R
COMPARATOR
FLIP
FLOP
OUT
R
R

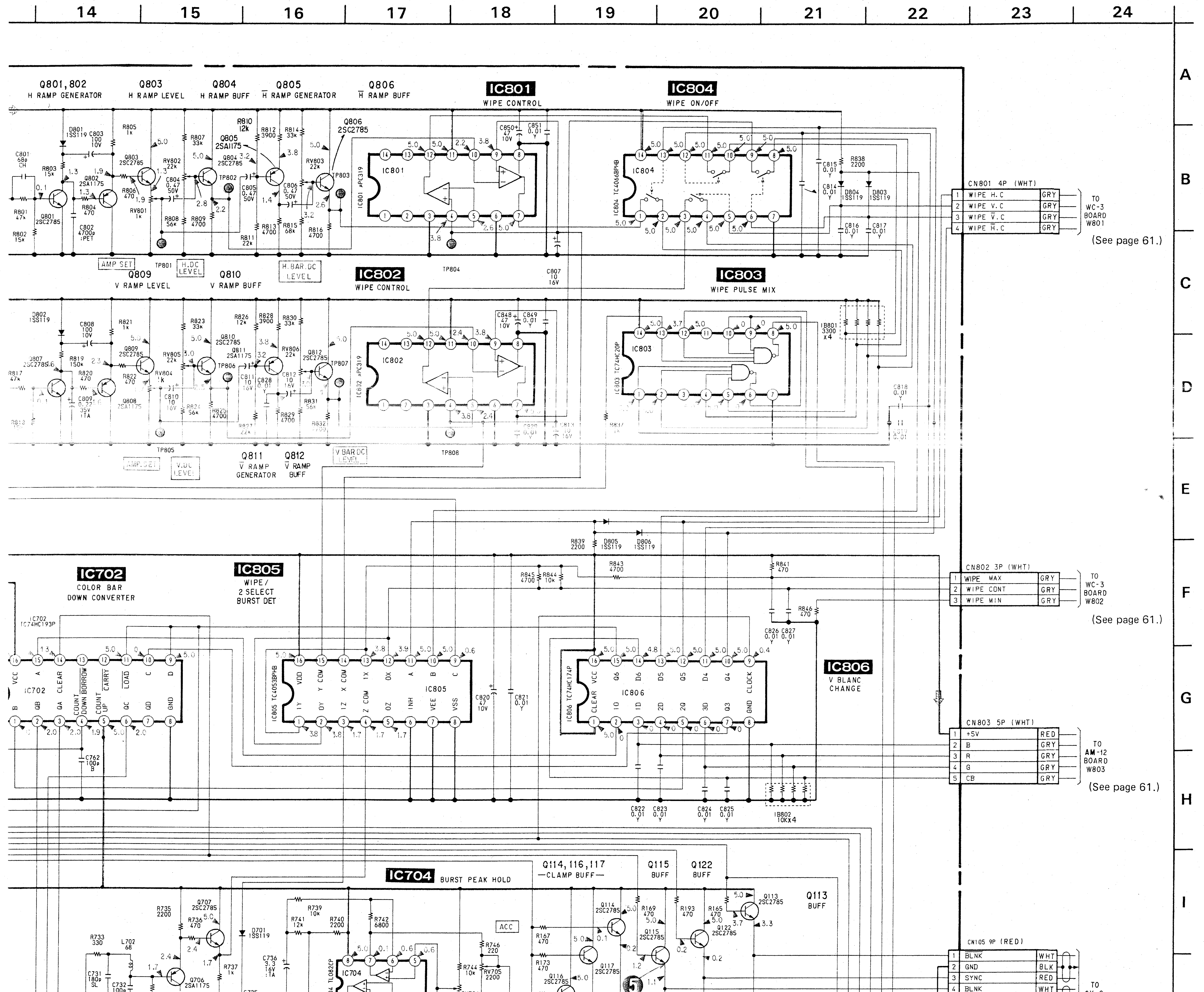
SA-25 BOARI


TC74HC174P
Vcc
Q6
CLEAR
Q1

When indicating parts by reference number, please include the board name.

XV-C700

VIDEO (3) VIDEO (3)


14
15
16
17
18
19
20
21
22
23
24
A
B
C
D
E
F
G
H
I
Q801,802 H RAMP GENERATOR
Q803 H RAMP LEVEL
Q804 H RAMP BUFF
Q805 H RAMP GENERATOR
Q806 H RAMP BUFF
IC801 WIPE CONTROL
IC804 WIPE ON/OFF
Q809 V RAMP LEVEL
Q810 V RAMP BUFF
IC802 WIPE CONTROL
IC803 WIPE PULSE MIX
Q811 V RAMP GENERATOR
Q812 V RAMP BUFF
AMP SET
H.DC LEVEL
H.BAR DC LEVEL
V.DC LEVEL
V.BAR DC LEVEL
CN801 4P (WHT)
1 WIPE H.C GRY
2 WIPE V.C GRY
3 WIPE V.C GRY
4 WIPE H.C GRY
TO WC-3 BOARD W801
(See page 61.)
IC702 COLOR BAR DOWN CONVERTER
IC805 WIPE/2 SELECT BURST DET
IC806 V BLANC CHANGE
CN802 3P (WHT)
1 WIPE MAX GRY
2 WIPE CONT GRY
3 WIPE MIN GRY
TO WC-3 BOARD W802
(See page 61.)
CN803 5P (WHT)
1 +5V RED
2 B GRY
3 R GRY
4 G GRY
5 CB GRY
TO AM-12 BOARD W803
(See page 61.)
IC704 BURST PEAK HOLD
Q114,116,117 —CLAMP BUFF—
Q115 BUFF
Q122 BUFF
Q113 BUFF
ACC
CN105 9P (RED)
1 BLNK WHT
2 GND BLK
3 SYNC RED
4 BLNK WHT

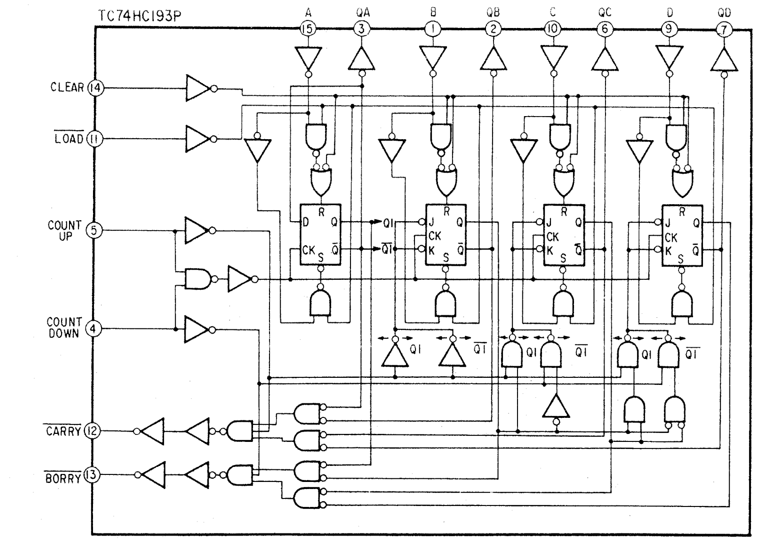
Note:

- All resistors are in ohms, 1/4W unless otherwise noted.
  kΩ: 1000Ω, MΩ: 1000kΩ.
- All capacitors are in μF unless otherwise noted. pF : μμF.
  50V or less are not indicated except for electrolytics. and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- ☐ : panel designation.
- △ : internal component.
- ⬚ : adjustment for repair.
- ━━ : B + bus.
- ╍╍ : B − bus.
- ⇨ : IN/OUT direction of +B, −B bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltage variations may be noted due to normal production tolerances.
- Voltage and waveform measuring conditions.
  Receive an PAL color bar signal on SOURCE VIDEO 1 terminal.

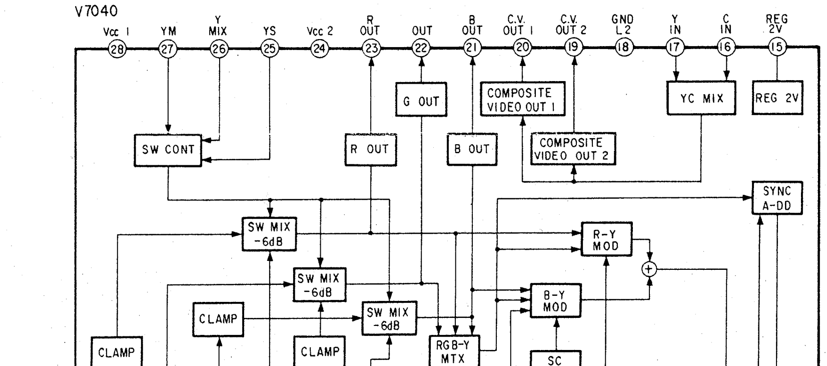
INPUT SELECT SWITCH	: 1
VIDEO ART VOLUME	: MAX
REVERSE SWITCH	: OFF
REVERSE (NEGA/POSI) SWITCH	: OFF
COLOR SELECT SWITCH	: COLOR BAR
WIPE PATTERN ◨	: ON
WIPE PATTERN ◧	: ON
WIPE PATTERN ⬓	: ON
WIPE PATTERN ⬒	: ON
WIPE KNOB	: MIN
COLOR CORRECT SWITCH	: ON
WIDE RANGE SWITCH	: OFF
FADER VIDEO SWITCH	: ON
FADER AUDIO SWITCH	: ON
WHITE CLIP SWITCH	: ON

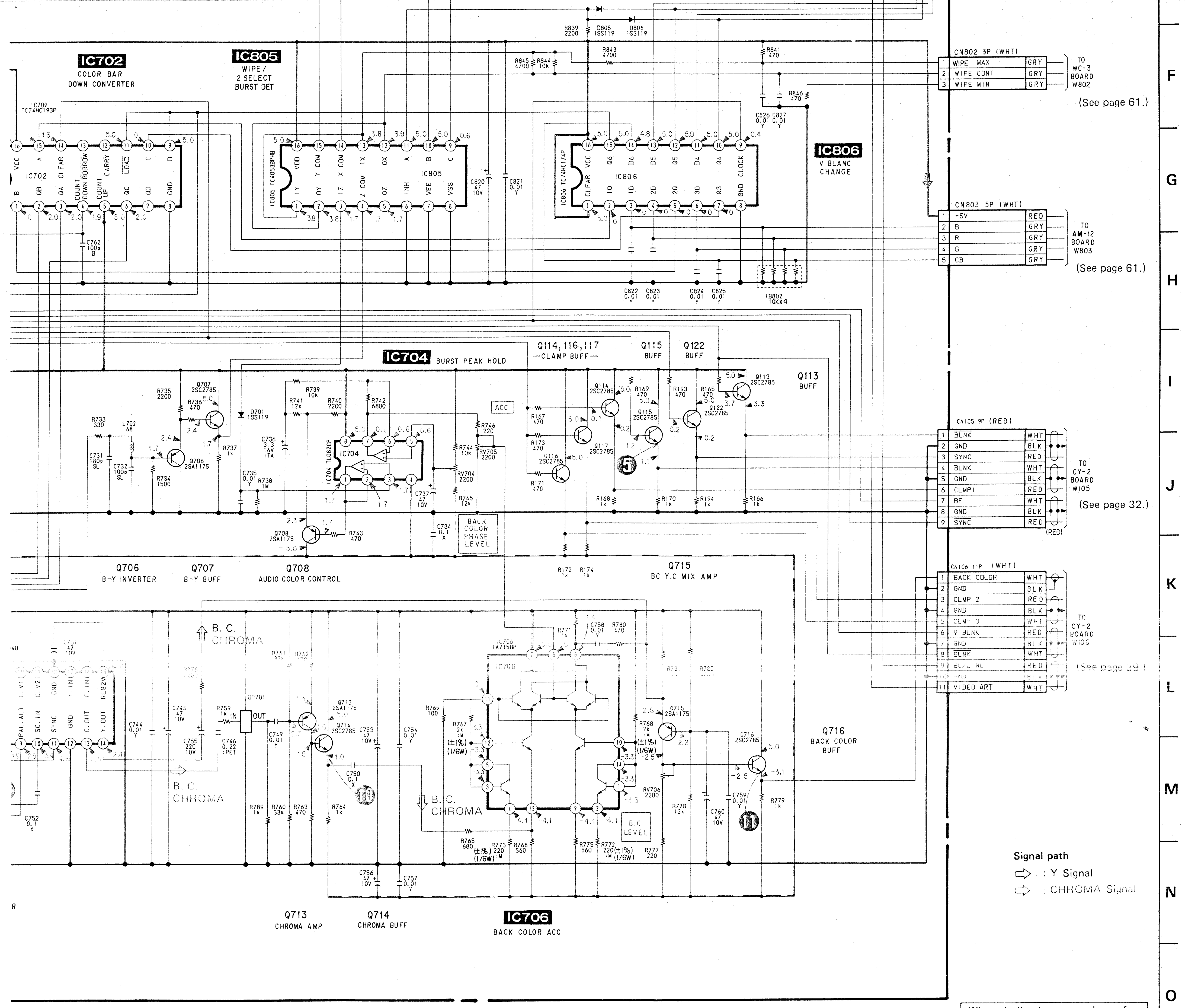
Set the control knob to the mechanical center position unless otherwise noted.

SA-25 BOARD IC702


TC74HC193P
A
QA
B
QB
C
QC
D
QD
CLEAR
LOAD
COUNT UP
COUNT DOWN
CARRY
BORRY

SA-25 BOARD IC705


V7040
Vcc 1
YM
Y MIX
YS
Vcc 2
R OUT
OUT
B OUT
C.V OUT 1
C.V OUT 2
GND L2
Y IN
C IN
REG 2V
G OUT
COMPOSITE VIDEO OUT 1
COMPOSITE VIDEO OUT 2
YC MIX
REG 2V
SW CONT
R OUT
B OUT
SYNC A-DD
SW MIX -6dB
SW MIX -6dB
SW MIX -6dB
R-Y MOD
B-Y MOD
CLAMP
CLAMP
CLAMP
RGB-Y MTX
SC

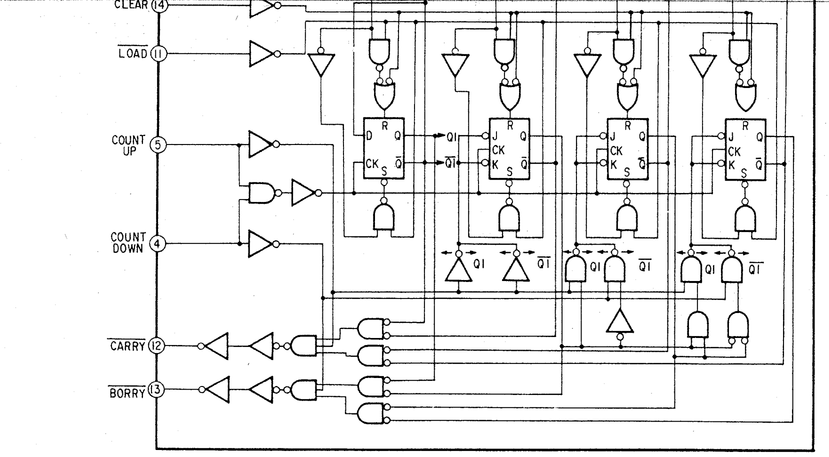

IC702
COLOR BAR DOWN CONVERTER
IC805
WIPE/2 SELECT BURST DET
IC806
V BLANC CHANGE
IC704
BURST PEAK HOLD
Q114,116,117 —CLAMP BUFF—
Q115 BUFF
Q122 BUFF
Q113 BUFF
ACC
BACK COLOR PHASE LEVEL
Q706 B-Y INVERTER
Q707 B-Y BUFF
Q708 AUDIO COLOR CONTROL
Q715 BC Y.C MIX AMP
Q716 BACK COLOR BUFF
Q713 CHROMA AMP
Q714 CHROMA BUFF
IC706
BACK COLOR ACC
B. C. CHROMA
B.C LEVEL
CN802 3P (WHT)
1 WIPE MAX GRY
2 WIPE CONT GRY
3 WIPE MIN GRY
TO WC-3 BOARD W802
(See page 61.)
CN803 5P (WHT)
1 +5V RED
2 B GRY
3 R GRY
4 G GRY
5 CB GRY
TO AM-12 BOARD W803
(See page 61.)
CN105 9P (RED)
1 BLNK WHT
2 GND BLK
3 SYNC RED
4 BLNK WHT
5 GND BLK
6 CLMP1 RED
7 BF WHT
8 GND BLK
9 SYNC RED
TO CY-2 BOARD W105
(See page 32.)
CN106 11P (WHT)
1 BACK COLOR WHT
2 GND BLK
3 CLMP 2 RED
4 GND BLK
5 CLMP 3 WHT
6 V BLNK RED
7 GND BLK
8 BLNK WHT
9 BC/LINE RED
10 GND
11 VIDEO ART WHT
TO CY-2 BOARD W106
(See page 39.)
F
G
H
I
J
K
L
M
N
O

Signal path

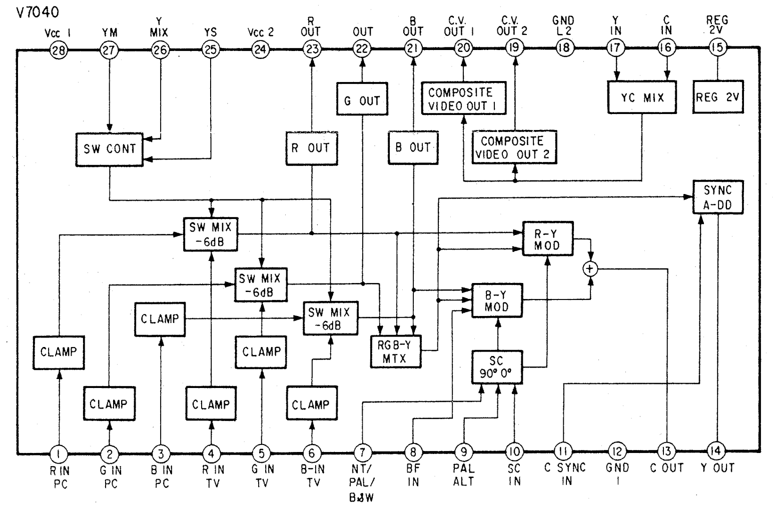
⇨ : Y Signal

⇨ : CHROMA Signal

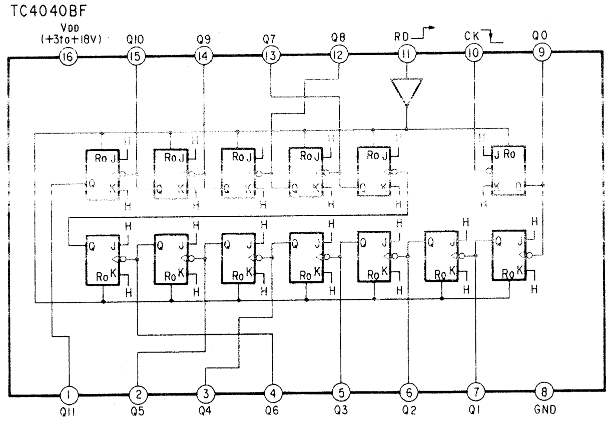
When indicating parts by reference number, please include the board name.


CLEAR
LOAD
COUNT UP
COUNT DOWN
CARRY
BORRY

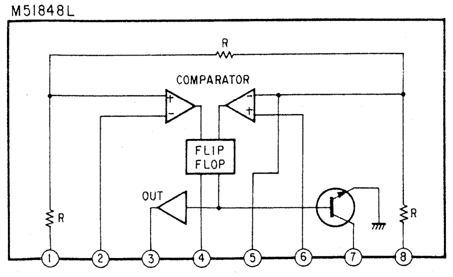
SA-25 BOARD IC705


V7040
Vcc 1
YM
Y MIX
YS
Vcc 2
R OUT
G OUT
B OUT
C.V OUT 1
C.V OUT 2
GND L2
Y IN
C IN
REG 2V
G OUT
COMPOSITE VIDEO OUT 1
YC MIX
REG 2V
SW CONT
R OUT
B OUT
COMPOSITE VIDEO OUT 2
SYNC A-DD
SW MIX -6dB
R-Y MOD
B-Y MOD
RGB-Y MTX
SC 90°0°
CLAMP
R IN PC
G IN PC
B IN PC
R IN TV
G IN TV
B-IN TV
NT/PAL/B&W
BF IN
PAL ALT
SC IN
C SYNC IN
GND 1
C OUT
Y OUT

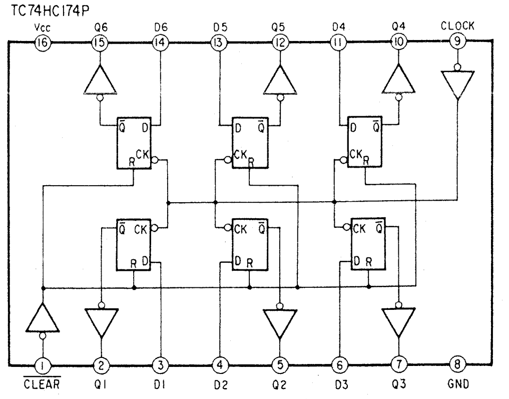
SA-25 BOARD IC107


TC4040BF
VDD (+3to+18V)
Q10
Q9
Q7
Q8
RD
CK
Q0
Q11
Q5
Q4
Q6
Q3
Q2
Q1
GND

SA-25 BOARD IC106, IC103


M51848L
R
COMPARATOR
FLIP FLOP
OUT
R

SA-25 BOARD IC806

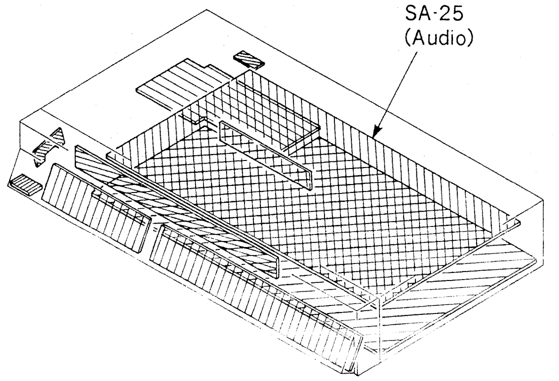

TC74HC174P
Vcc
Q6
D6
D5
Q5
D4
Q4
CLOCK
CLEAR
Q1
D1
D2
Q2
D3
Q3
GND

Note:

- ○— : indicates a lead wire mounted on the component side.
- ●— : indicates a lead wire mounted on the printed side.
- ▨ : soldering side.

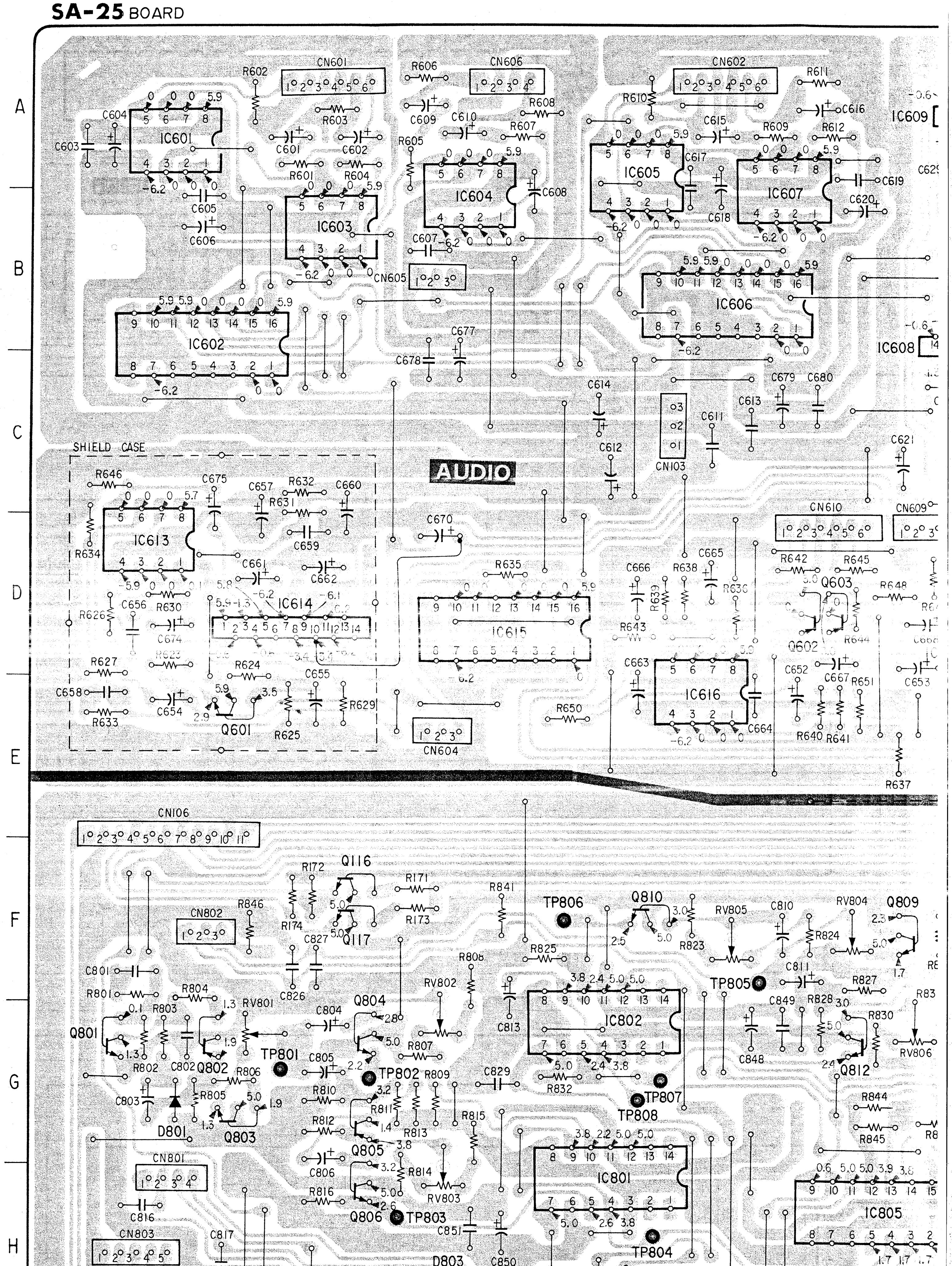
When indicating parts by reference number, please include the board name.

CN102	A-9
CN103	C-4
CN104	A-9
CN105	F-11
CN106	E-1
CN601	A-2
CN602	A-5
CN603	A-8
CN604	E-3
CN605	B-3
CN606	C-1
CN608	C-8
CN609	C-6
CN610	C-5
CN701	D-12
CN801	G-1
CN802	F-2
CN803	H-1
CV701	F-13
D101	B-9
D102	B-10
D103	E-10
D104	E-10
D105	B-11
D106	B-10
D612	D-6
D701	H-6
D801	G-1
D802	F-7
D803	H-3
D804	H-3
D805	I-6
D806	H-3
IC101	A-12
IC102	A-11
IC103	A-14
IC104	C-14
IC105	C-12
IC106	C-10
IC107	D-11
IC108	D-10
IC109	F-11
IC110	F-9
IC601	A-1
IC602	B-1
IC603	B-2
IC604	B-3
IC605	A-4
IC606	B-5
IC607	A-5
IC608	B-6
IC609	A-7
IC610	B-8
IC611	D-8
IC612	D-7
IC613	D-1
IC614	D-2
IC615	D-3
IC616	E-5
IC701	H-13
IC702	G-14
IC703	F-14
IC704	I-8
IC705	I-14
IC706	H-10
IC801	H-4
IC802	G-4
IC803	I-6
IC804	I-4
IC805	H-6
IC806	I-2
Q101	C-10
Q102	E-10
Q103	A-9
Q104	B-9
Q105	B-9
Q106	B-9
Q107	B-11
Q108	A-14
Q109	B-14
Q110	C-13
Q111	C-12
Q112	E-12
Q113	G-10
Q114	G-9
Q115	G-10
Q116	F-2
Q117	F-2
Q118	E-10
Q119	E-12
Q120	D-11
Q121	E-10
Q122	G-10
Q123	C-10
Q124	D-9
Q601	E-2
Q602	D-5
Q603	D-5
Q701	D-14
Q702	E-13
Q703	D-14
Q704	E-12
Q705	H-13
Q706	D-14
Q707	D-13
Q708	I-8
Q709	I-14
Q710	H-14
Q711	I-14
Q712	I-12
Q713	I-10
Q714	I-10
Q715	I-9
Q716	I-7
Q801	G-1
Q802	G-2
Q803	G-2
Q804	F-3
Q805	G-3
Q806	H-3
Q807	G-7
Q808	F-6
Q809	F-6
Q810	F-4
Q811	F-6
Q812	G-6
RV101	C-14
RV102	C-11
RV103	B-13
RV104	C-9
RV601	C-7
RV602	B-8
RV701	G-12
RV702	F-12
RV703	I-12
RV704	H-8
RV705	
RV706	I-8
RV801	G-2
RV802	F-3
RV803	H-3
RV804	F-6
RV805	F-5
RV806	G-6
TP801	G-2
TP802	G-3
TP803	H-3
TP804	H-4
TP805	F-5
TP806	F-4
TP807	G-4
TP808	G-4

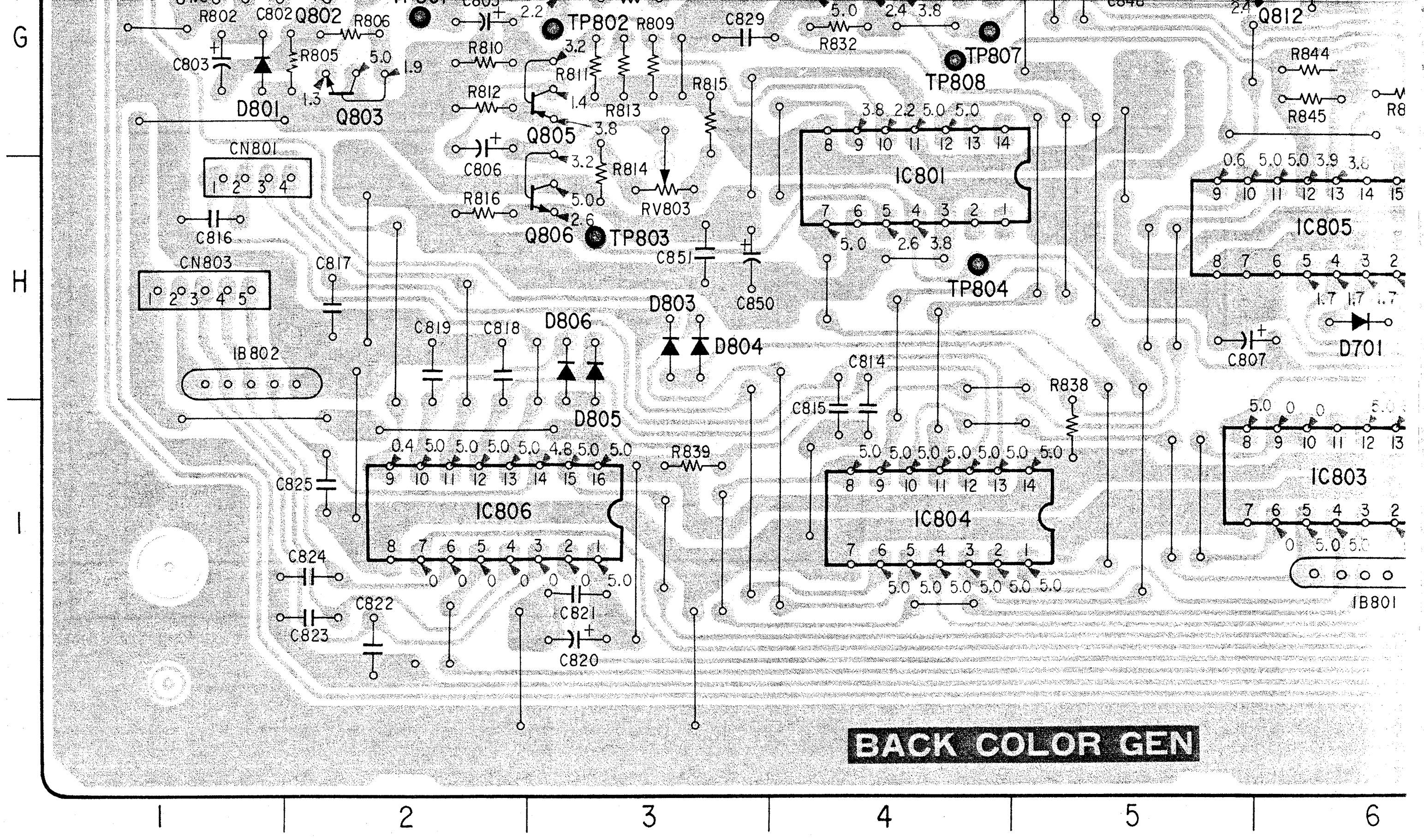


SA-25 (AUDIO) PRINTED WIRING BOARD

—Ref. No. SA-25 BOARD : 3, 000 series—

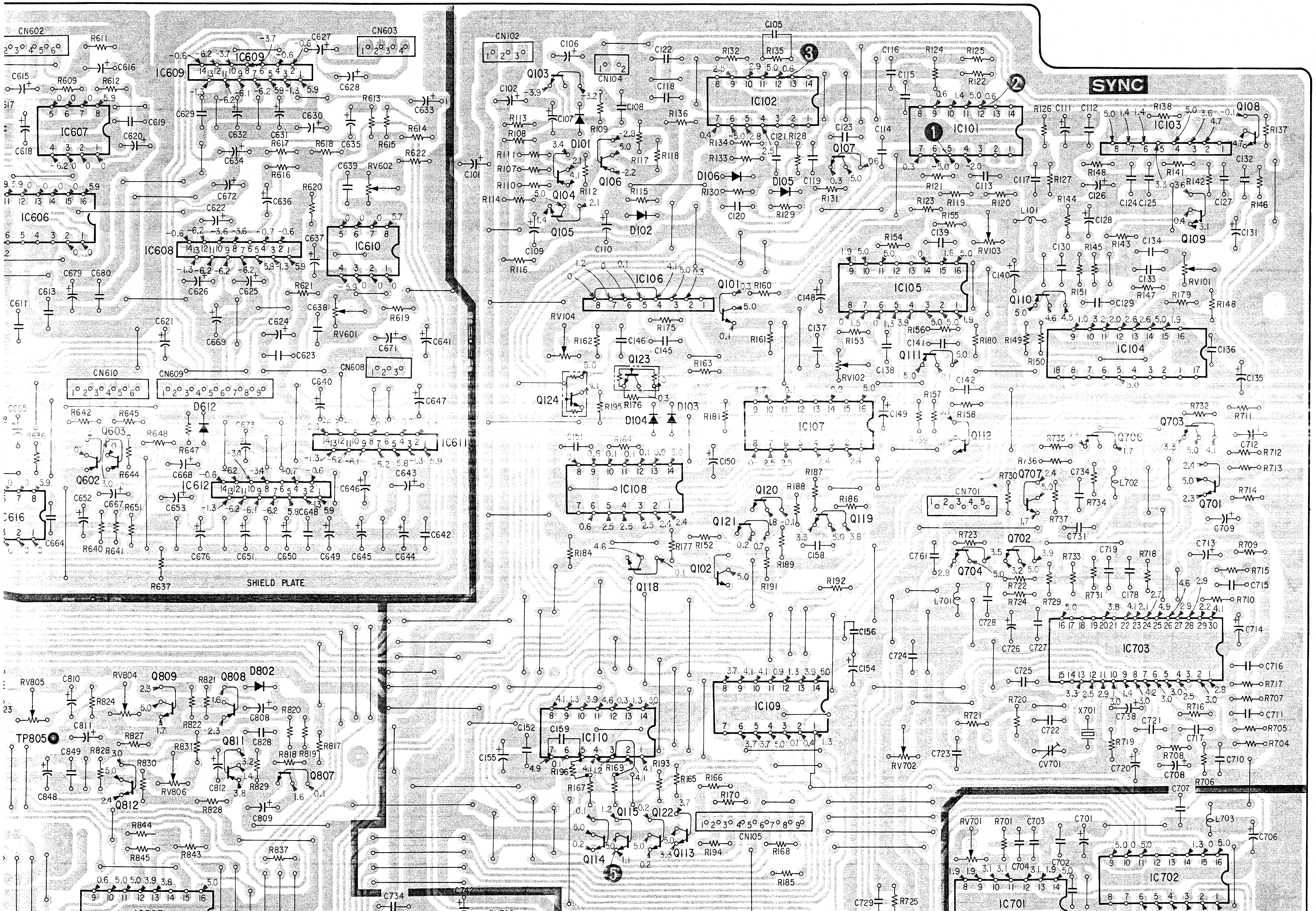

SA-25 BOARD
A
B
C
D
E
F
G
H
AUDIO
SHIELD CASE
CN601
CN602
CN603
CN604
CN605
CN606
CN609
CN610
CN103
CN106
CN801
CN802
CN803
IC601
IC602
IC603
IC604
IC605
IC606
IC607
IC608
IC609
IC613
IC614
IC615
IC616
IC801
IC802
IC805
Q116
Q117
Q601
Q602
Q603
Q801
Q802
Q803
Q804
Q805
Q806
Q809
Q810
Q812
D801
D803
RV801
RV802
RV803
RV804
RV805
RV806
TP801
TP802
TP803
TP804
TP805
TP806
TP807
TP808

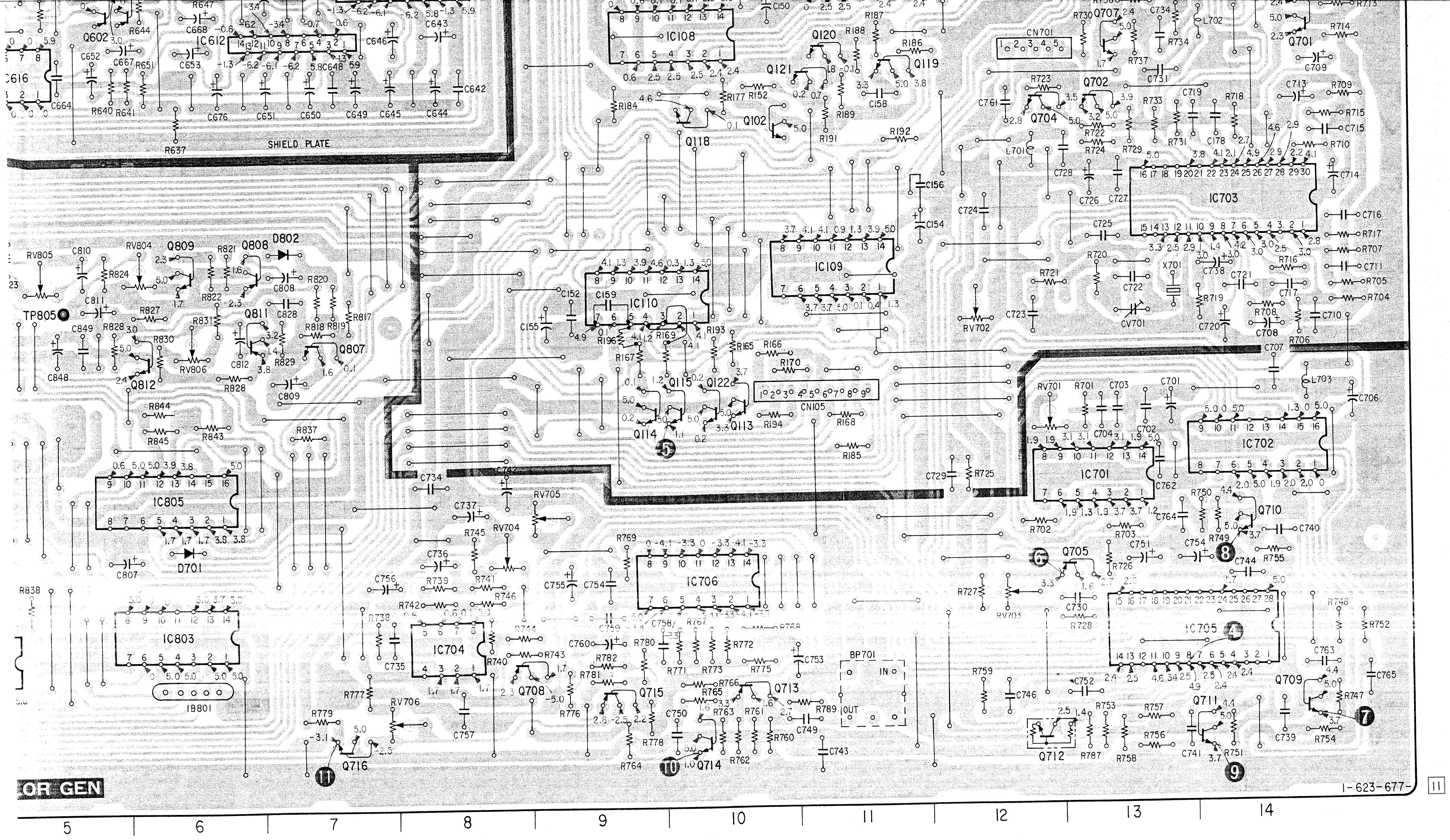
Q117 F-2


BACK COLOR GEN
G
H
I
1
2
3
4
5
6
IC801
IC803
IC804
IC805
IC806
Q802
Q803
Q805
Q806
Q812
D701
D801
D803
D804
D805
D806
TP802
TP803
TP804
TP807
TP808
CN801
CN803
IB801
IB802
RV803
R802
R805
R806
R809
R810
R811
R812
R813
R814
R815
R816
R832
R838
R839
R844
R845
C802
C803
C806
C807
C814
C815
C816
C817
C818
C819
C820
C821
C822
C823
C824
C825
C829
C850
C851

AUDIO AUDIO

XV-C700


SYNC
SHIELD PLATE
CN602
CN603
CN102
CN104
CN610
CN609
CN608
CN701
CN105
IC609
IC607
IC606
IC608
IC610
IC611
IC612
IC616
IC102
IC101
IC103
IC106
IC105
IC104
IC107
IC108
IC109
IC110
IC703
IC702
IC701
Q103
Q104
Q105
Q106
Q107
Q108
Q109
Q110
Q111
Q112
Q101
Q102
Q118
Q119
Q120
Q121
Q122
Q123
Q124
Q113
Q114
Q115
Q602
Q603
Q701
Q702
Q703
Q704
Q706
Q707
Q807
Q808
Q809
Q811
Q812
D101
D102
D103
D104
D105
D106
D612
D802
RV101
RV102
RV103
RV104
RV601
RV602
RV701
RV702
RV804
RV805
RV806
CV701
X701
L101
L701
L702
L703
TP805

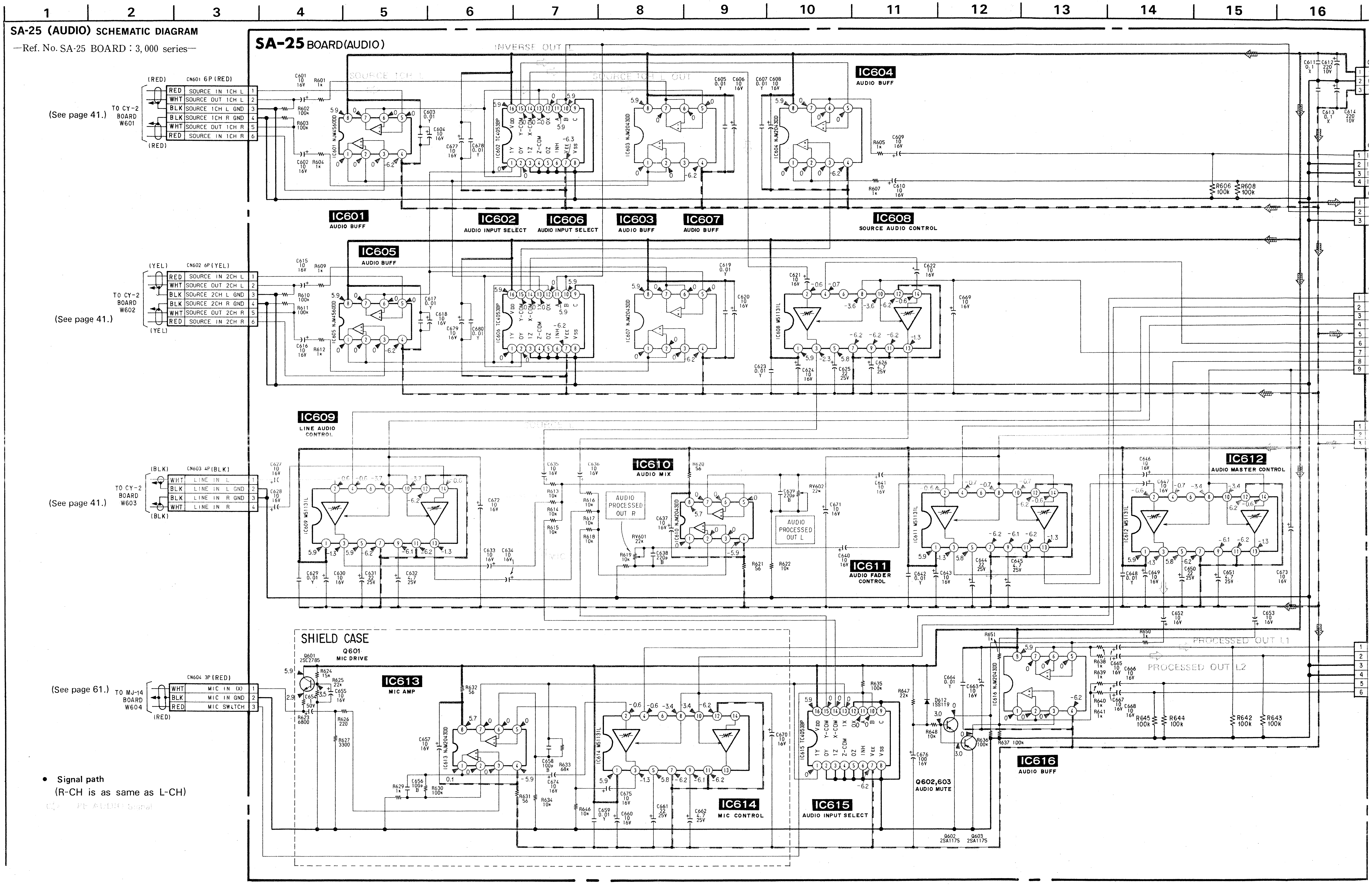

SHIELD PLATE
IC612
IC108
IC109
IC110
IC703
IC805
IC803
IC704
IC706
IC701
IC702
IC705
CN701
CN105
BP701
IN
OUT
IB801
Q602
Q809
Q808
Q811
Q807
Q812
Q118
Q120
Q121
Q119
Q102
Q114
Q115
Q122
Q113
Q707
Q701
Q702
Q704
Q705
Q710
Q708
Q715
Q713
Q714
Q716
Q712
Q711
Q709
D802
D701
X701
CV701
L701
L702
L703
RV805
RV804
RV806
RV702
RV701
RV705
RV704
RV706
RV703
TP805
OR GEN
1-623-677-11
5
6
7
8
9
10
11
12
13
14

C700

AUDIO AUDIO

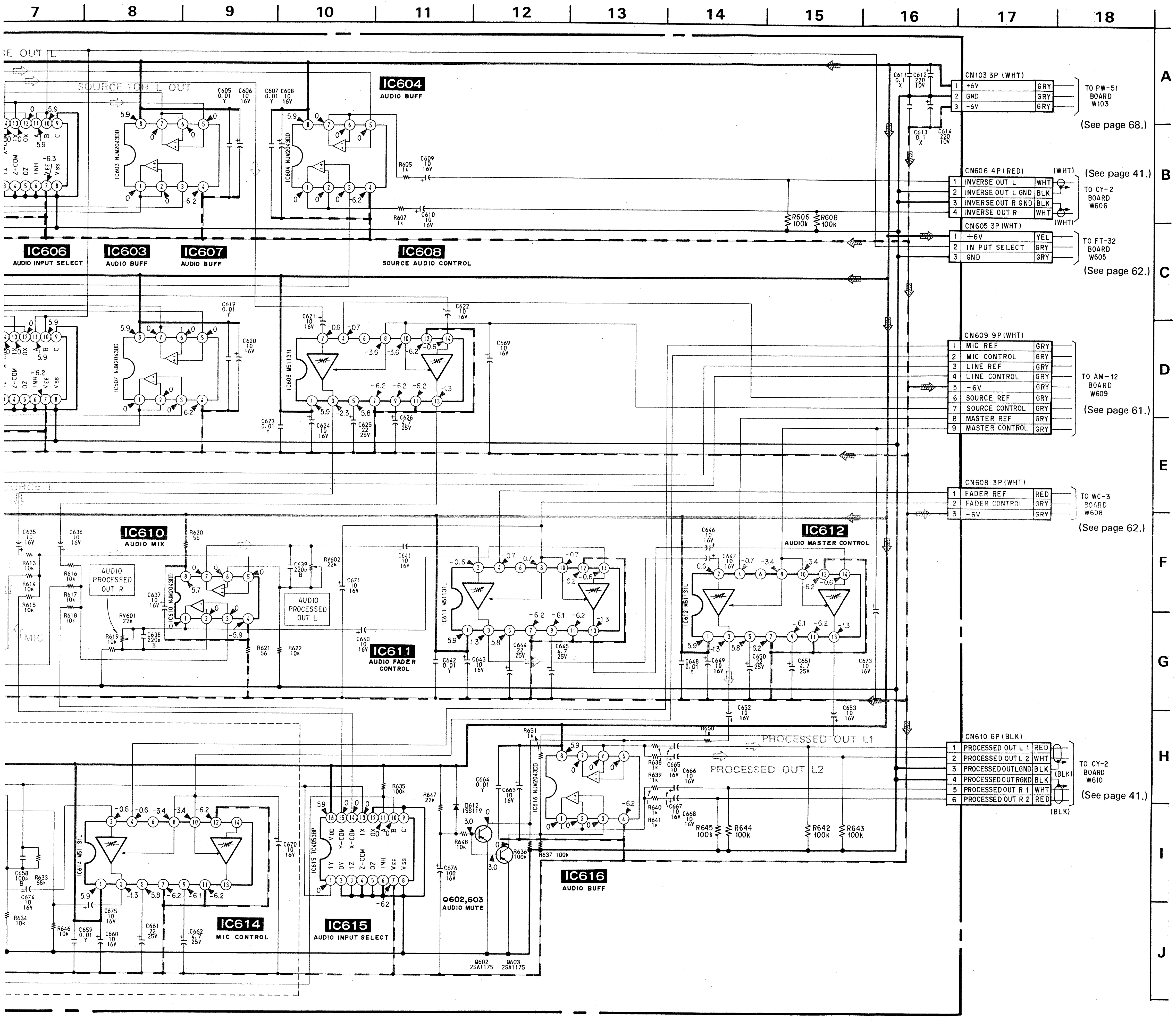
SA-25 (AUDIO) SCHEMATIC DIAGRAM

—Ref. No. SA-25 BOARD : 3, 000 series—


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
SA-25 BOARD (AUDIO)
(See page 41.)
TO CY-2 BOARD W601
CN601 6P (RED)
RED SOURCE IN 1CH L
WHT SOURCE OUT 1CH L
BLK SOURCE 1CH L GND
BLK SOURCE 1CH R GND
WHT SOURCE OUT 1CH R
RED SOURCE IN 1CH R
(See page 41.)
TO CY-2 BOARD W602
CN602 6P (YEL)
RED SOURCE IN 2CH L
WHT SOURCE OUT 2CH L
BLK SOURCE 2CH L GND
BLK SOURCE 2CH R GND
WHT SOURCE OUT 2CH R
RED SOURCE IN 2CH R
(See page 41.)
TO CY-2 BOARD W603
CN603 4P (BLK)
WHT LINE IN L
BLK LINE IN L GND
BLK LINE IN R GND
WHT LINE IN R
(See page 61.)
TO MJ-14 BOARD W604
CN604 3P (RED)
WHT MIC IN (X)
BLK MIC IN GND
RED MIC SWITCH
IC601 AUDIO BUFF
IC602 AUDIO INPUT SELECT
IC606 AUDIO INPUT SELECT
IC603 AUDIO BUFF
IC607 AUDIO BUFF
IC604 AUDIO BUFF
IC605 AUDIO BUFF
IC608 SOURCE AUDIO CONTROL
IC609 LINE AUDIO CONTROL
IC610 AUDIO MIX
IC611 AUDIO FADER CONTROL
IC612 AUDIO MASTER CONTROL
IC613 MIC AMP
IC614 MIC CONTROL
IC615 AUDIO INPUT SELECT
IC616 AUDIO BUFF
Q601 2SC2785 MIC DRIVE
Q602,603 AUDIO MUTE
Q602 2SA1175
Q603 2SA1175
D612 1SS119
SHIELD CASE
AUDIO PROCESSED OUT R
AUDIO PROCESSED OUT L
INVERSE OUT L
SOURCE 1CH L
SOURCE 1CH L OUT
PROCESSED OUT L1
PROCESSED OUT L2
IC601 NJM4560DD
IC602 TC4053BP
IC603 NJM2043DD
IC604 NJM2043DD
IC605 NJM4560DD
IC606 TC4053BP
IC607 NJM2043DD
IC608 M5113IL
IC609 M5113IL
IC610 NJM2043DD
IC611 M5113IL
IC612 M5113IL
IC613 NJM2043DD
IC614 M5113IL
IC615 TC4053BP
IC616 NJM2043DD
RV601 22k
RV602 22k

- **Signal path**

(R-CH is as same as L-CH)


IC604 AUDIO BUFF
IC606 AUDIO INPUT SELECT
IC603 AUDIO BUFF
IC607 AUDIO BUFF
IC608 SOURCE AUDIO CONTROL
IC610 AUDIO MIX
IC611 AUDIO FADER CONTROL
IC612 AUDIO MASTER CONTROL
IC614 MIC CONTROL
IC615 AUDIO INPUT SELECT
IC616 AUDIO BUFF
Q602,603 AUDIO MUTE
SOURCE 1CH L OUT
AUDIO PROCESSED OUT R
AUDIO PROCESSED OUT L
PROCESSED OUT L1
PROCESSED OUT L2
CN103 3P (WHT)
TO PW-51 BOARD W103
(See page 68.)
CN606 4P (RED)
TO CY-2 BOARD W606
(See page 41.)
CN605 3P (WHT)
TO FT-32 BOARD W605
(See page 62.)
CN609 9P (WHT)
TO AM-12 BOARD W609
(See page 61.)
CN608 3P (WHT)
TO WC-3 BOARD W608
(See page 62.)
CN610 6P (BLK)
TO CY-2 BOARD W610
(See page 41.)
7 8 9 10 11 12 13 14 15 16 17 18
A B C D E F G H I J

Note:

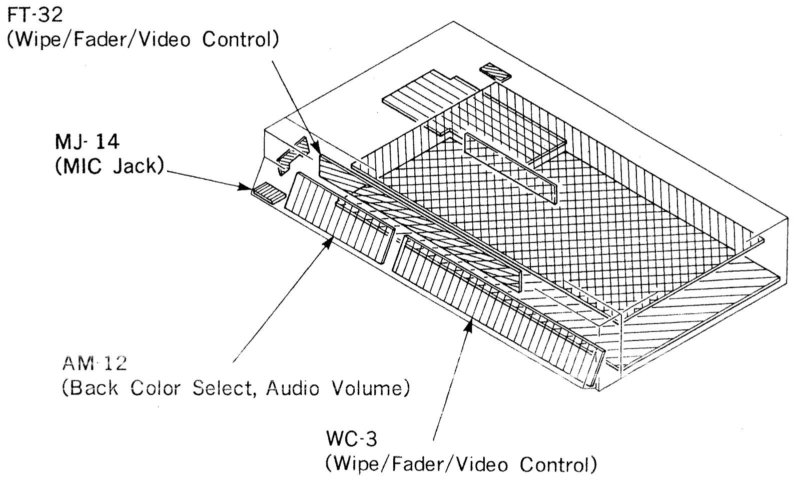
- All resistors are in ohms, 1/4W unless otherwise noted. kΩ: 1000Ω, MΩ: 1000kΩ.
- All capacitors are in μF unless otherwise noted. pF : μμF. 50V or less are not indicated except for electrolytics. and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ▭ : nonflammable resistor.
- ∿ : fusible resistor.
- ☐ : panel designation.
- △ : internal component.
- ☐ : adjustment for repair.
- ▬▬ : B + bus.
- ‒ ‒ ‒ : B – bus.
- ⇨ : IN/OUT direction of +B, –B bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltage variations may be noted due to normal production tolerances.
- Voltage and waveform measuring conditions.
  Receive an PAL color bar signal on SOURCE VIDEO 1 terminal.
  INPUT SELECT SWITCH : 1
  VIDEO ART VOLUME : MAX
  REVERSE SWITCH : OFF
  REVERSE (NEGA/POSI) SWITCH : OFF
  COLOR SELECT SWITCH : COLOR BAR
  WIPE PATTERN ◧ : ON
  WIPE PATTERN ◨ : ON
  WIPE PATTERN ⬓ : ON
  WIPE PATTERN ⬒ : ON
  WIPE KNOB : MIN
  COLOR CORRECT SWITCH : ON
  WIDE RANGE SWITCH : OFF
  FADER VIDEO SWITCH : ON
  FADER AUDIO SWITCH : ON
  WHITE CLIP SWITCH : ON
  Set the control knob to the mechanical center position unless otherwise noted.

When indicating parts by reference number, please include the board name.

Note:

- ○— : indicates a lead wire mounted on the component side.
- ●— : indicates a lead wire mounted on the printed side.
- ▨ : soldering side.

When indicating parts by reference number, please include the board name.

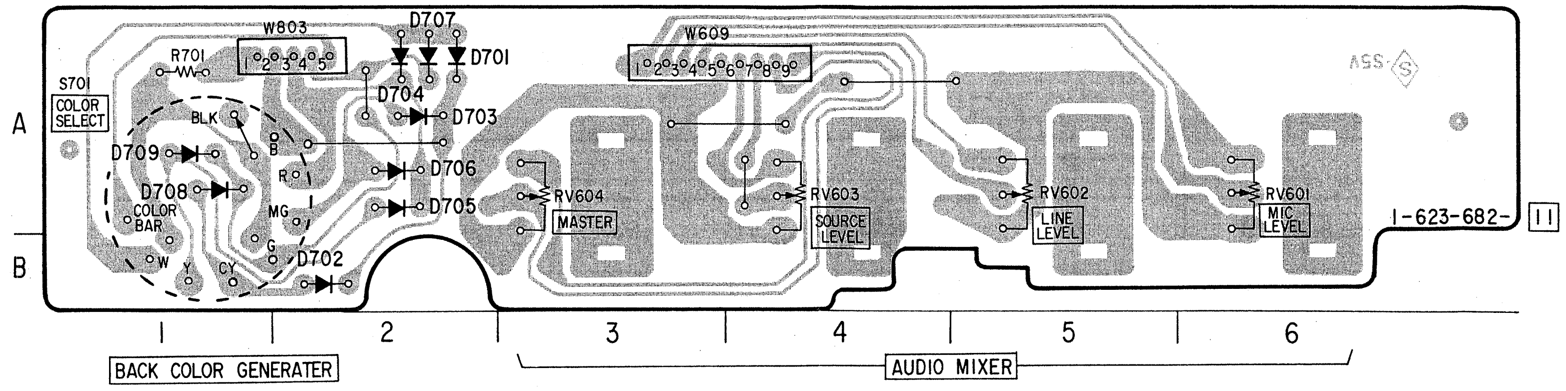

FT-32
(Wipe/Fader/Video Control)
MJ-14
(MIC Jack)
AM-12
(Back Color Select, Audio Volume)
WC-3
(Wipe/Fader/Video Control)

AM-12 (BACK COLOR SELECT, AUDIO VOLUME), FT-32, WC-3 (WIPE/FADER/VIDEO CONTROL), MJ-14 (MIC JACK) PRINTED WI

—Ref. No. AM-12 BOARD : 4, 000 series, FT-32 BOARD : 5, 000 series, WC-3 BOARD : 6, 000 series, MJ-14 BOARD : 7, 000 series—

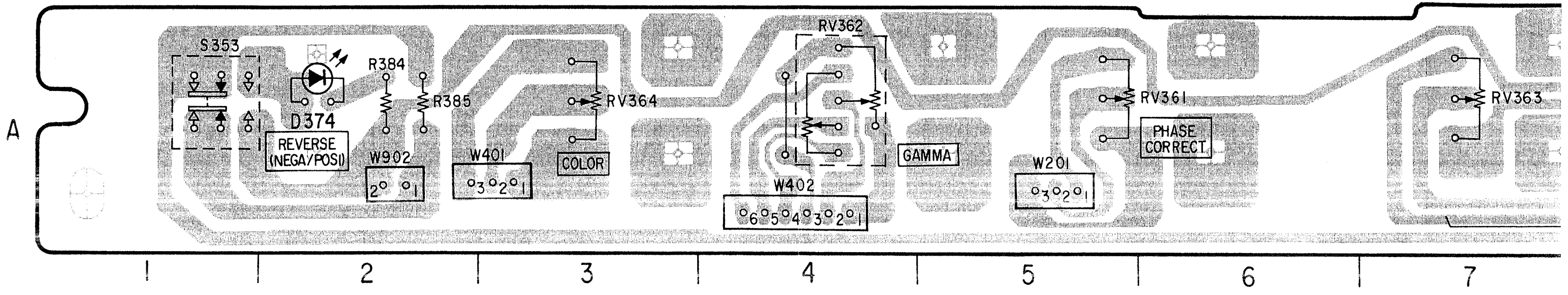
D701	A-2
D702	B-2
D703	A-2
D704	A-2
D705	A-2
D706	A-2
D707	A-2
D708	A-1
D709	A-1
RV601	A-6
RV602	A-5
RV603	A-4
RV604	A-3
W609	A-3
W803	A-2

AM-12 BOARD


W803
D707
D701
R701
W609
S701
COLOR SELECT
D704
D703
BLK
B
R
D709
D706
D708
COLOR BAR
MG
D705
RV604
MASTER
RV603
SOURCE LEVEL
RV602
LINE LEVEL
RV601
MIC LEVEL
W
Y
CY
G
D702
1-623-682-
11
A
B
1
2
3
4
5
6
BACK COLOR GENERATER
AUDIO MIXER

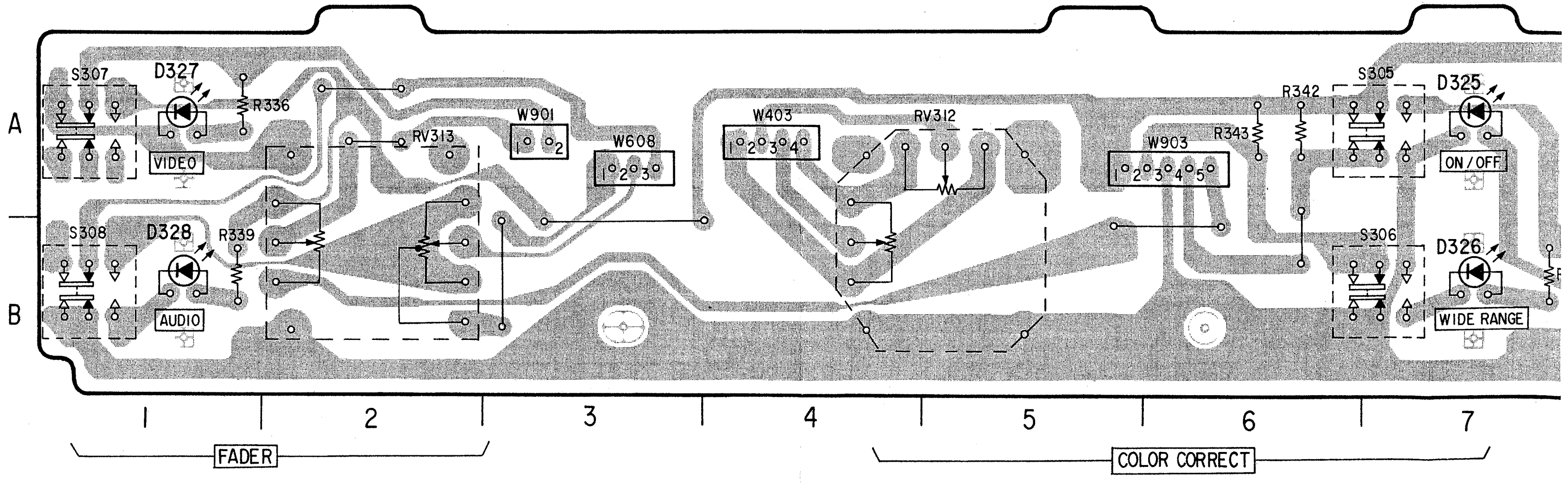
D371	A-11
D372	A-10
D373	A-9
D374	A-2
RV361	A-6
RV362	A-4
RV363	A-7
RV364	A-3
W001	A-10
W201	A-5
W401	A-3
W402	A-4
W605	A-11
W902	A-2
W904	A-8

FT-32 BOARD


S353
R384
R385
D374
REVERSE (NEGA/POSI)
W902
W401
RV364
COLOR
RV362
GAMMA
W402
W201
RV361
PHASE CORRECT
RV363
A
1
2
3
4
5
6
7

D321	A-10
D322	A-10
D323	A-10
D324	B-10
D325	A-7
D326	B-7
D327	A-1
D328	B-1
RV311	A-8
RV312	A-5
RV313	A-2
W403	A-4
W608	A-3
W801	A-9
W802	A-8
W901	A-3
W903	A-6

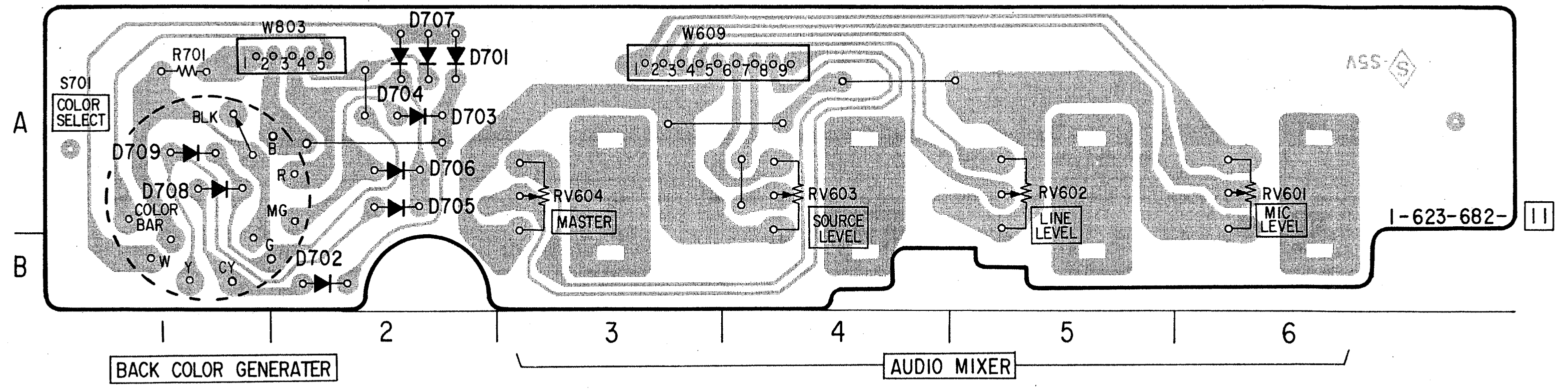
WC-3 BOARD


S307
D327
R336
VIDEO
RV313
W901
W608
W403
RV312
W903
R343
R342
S305
D325
ON/OFF
S308
D328
R339
AUDIO
S306
D326
WIDE RANGE
A
B
1
2
3
4
5
6
7
FADER
COLOR CORRECT

AM-12 (BACK COLOR SELECT, AUDIO VOLUME), FT-32, WC-3 (WIPE/FADER/VIDEO CONTROL), MJ-14 (MIC JACK) PRINTED WIRING BOARDS

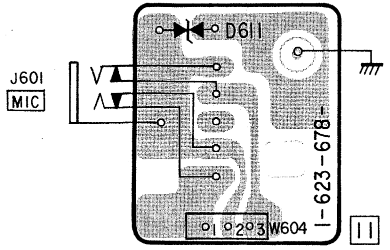
—Ref. No. AM-12 BOARD : 4, 000 series, FT-32 BOARD : 5, 000 series, WC-3 BOARD : 6, 000 series, MJ-14 BOARD : 7, 000 series—

AM-12 BOARD



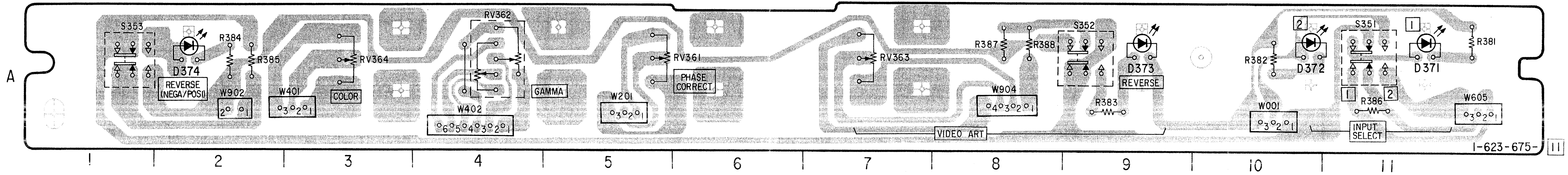
A
B
S701
COLOR SELECT
R701
W803
D707
D701
D704
D703
D706
D705
D709
D708
D702
BLK
B
R
MG
G
COLOR BAR
W
Y
CY
W609
RV604
MASTER
RV603
SOURCE LEVEL
RV602
LINE LEVEL
RV601
MIC LEVEL
1-623-682-
11
1
2
3
4
5
6
BACK COLOR GENERATER
AUDIO MIXER

MJ-14 BOARD



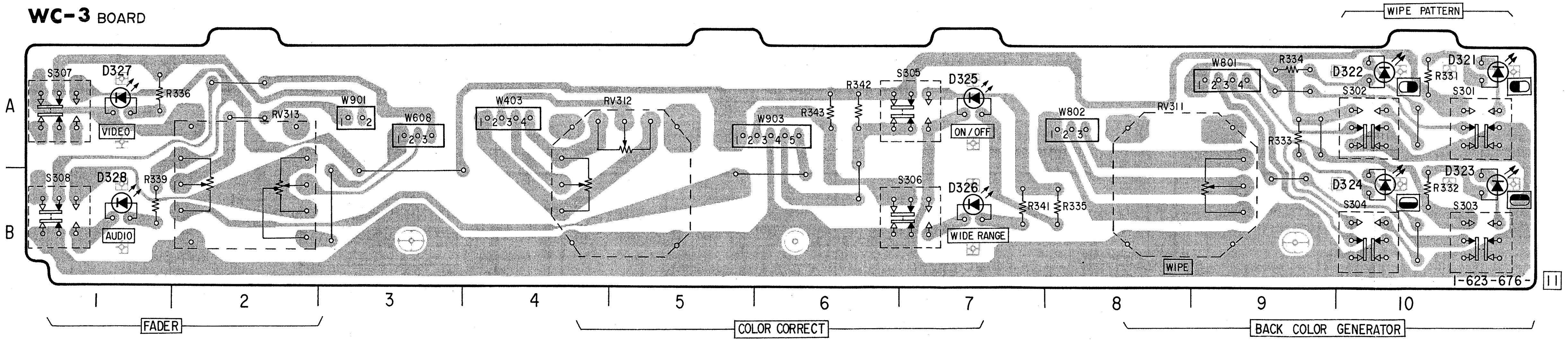
D611
J601
MIC
W604
1-623-678-
11

FT-32 BOARD



A
S353
D374
REVERSE (NEGA/POSI)
R384
R385
W902
W401
RV364
COLOR
RV362
W402
GAMMA
W201
RV361
PHASE CORRECT
RV363
W904
VIDEO ART
R387
R388
S352
D373
REVERSE
R383
R382
D372
S351
D371
R381
W001
R386
INPUT SELECT
W605
1-623-675-
11
1
2
3
4
5
6
7
8
9
10
11

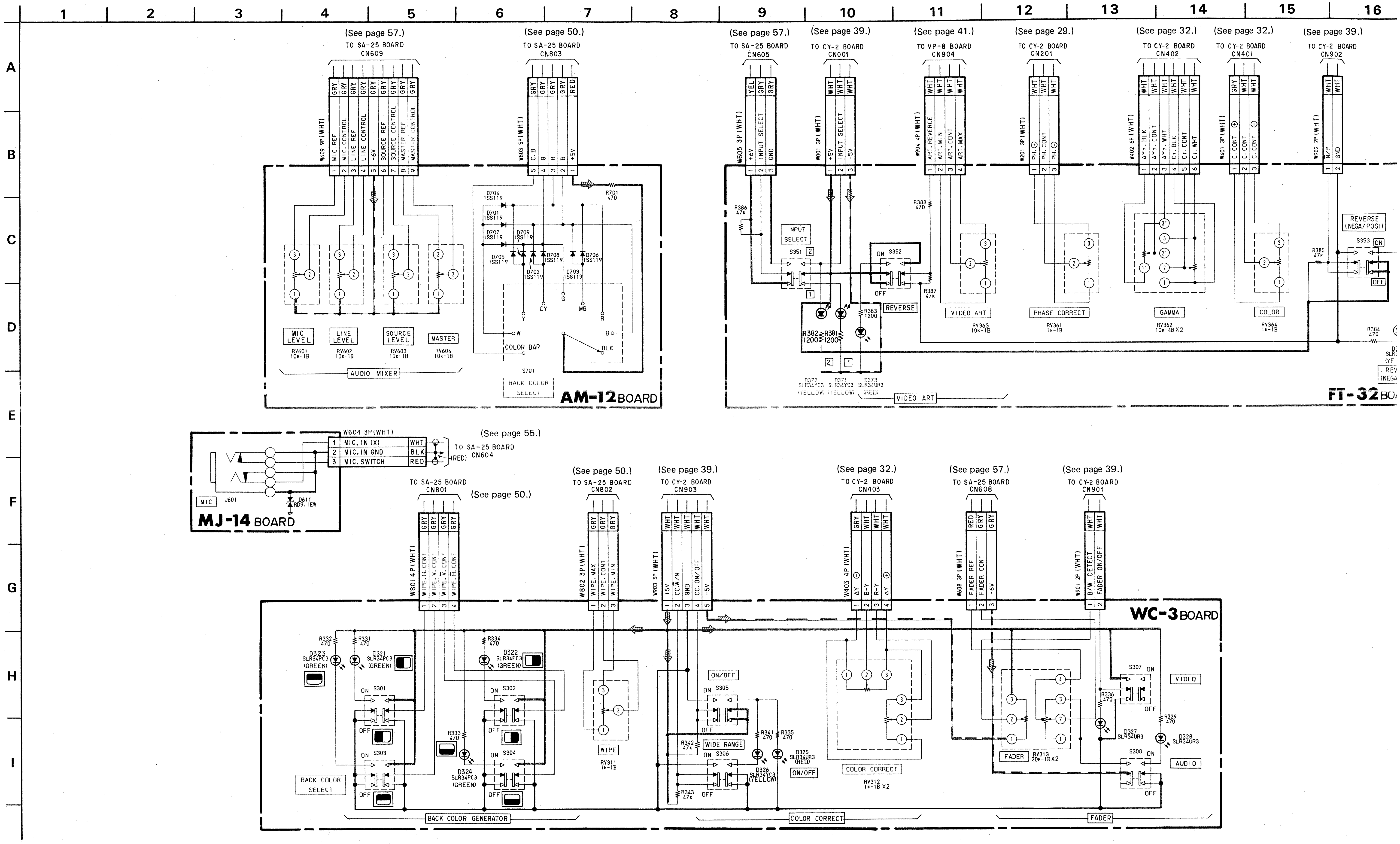
WC-3 BOARD



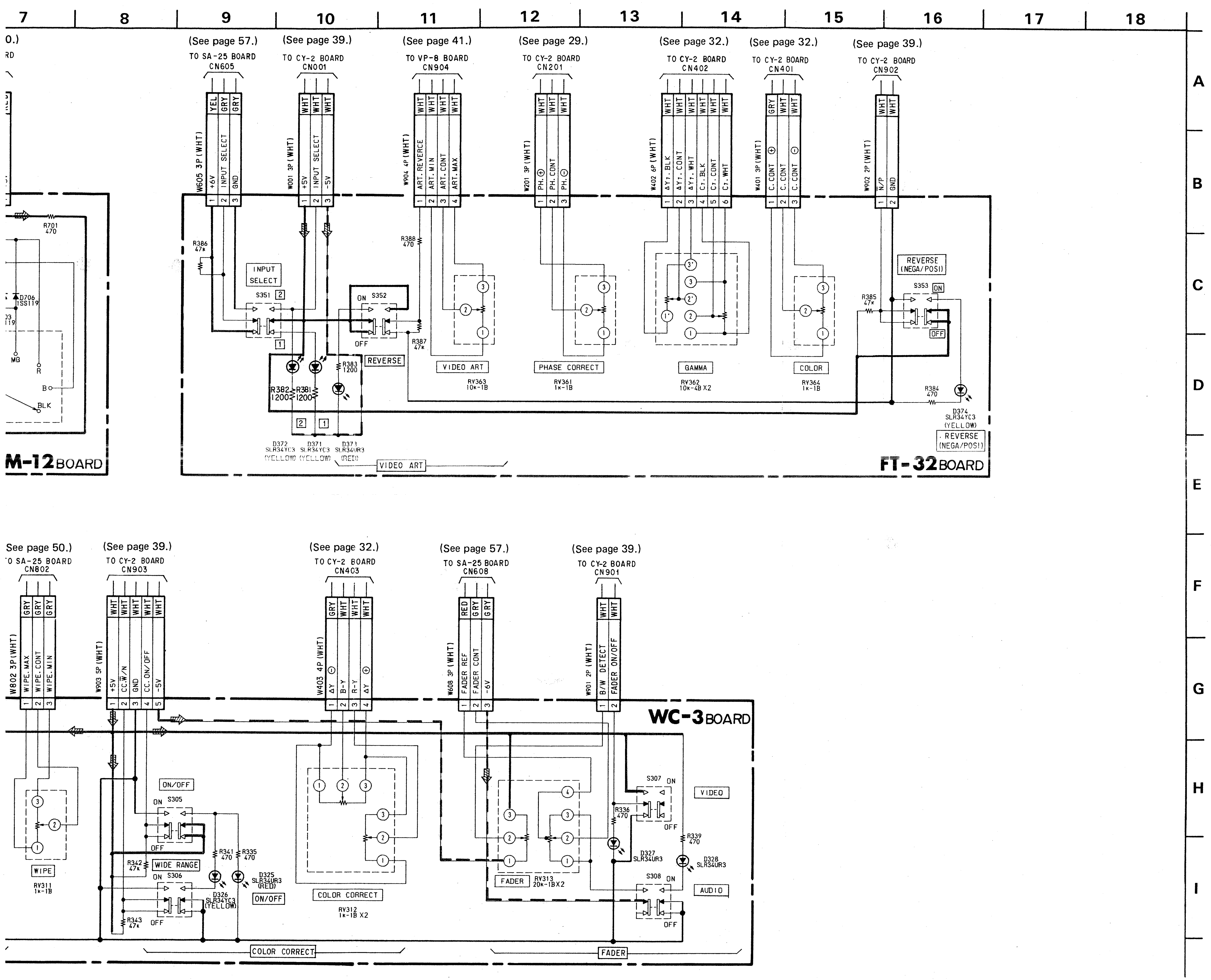
WIPE PATTERN
A
B
S307
D327
R336
VIDEO
RV313
W901
W608
S308
D328
R339
AUDIO
W403
RV312
W903
R342
R343
S305
D325
ON/OFF
S306
D326
R341
R335
WIDE RANGE
W802
RV311
WIPE
W801
R334
D322
R331
D321
S302
S301
R333
D324
R332
D323
S304
S303
1-623-676-
11
1
2
3
4
5
6
7
8
9
10
FADER
COLOR CORRECT
BACK COLOR GENERATOR

AM-12 (BACK COLOR SELECT, AUDIO VOLUME), FT-32, WC-3 (WIPE/FADER/VIDEO CONTROL), MJ-14 (MIC JACK) SCHEMATIC DIAGRAM

—Ref. No. AM-12 BOARD : 4, 000 series, FT-32 BOARD : 5, 000 series, WC-3 BOARD : 6, 000 series, MJ-14 BOARD : 7, 000 series—



(See page 57.) TO SA-25 BOARD CN609
(See page 50.) TO SA-25 BOARD CN803
(See page 57.) TO SA-25 BOARD CN605
(See page 39.) TO CY-2 BOARD CN001
(See page 41.) TO VP-8 BOARD CN904
(See page 29.) TO CY-2 BOARD CN201
(See page 32.) TO CY-2 BOARD CN402
(See page 32.) TO CY-2 BOARD CN401
(See page 39.) TO CY-2 BOARD CN902
W609 9P (WHT)
MIC. REF
MIC. CONTROL
LINE REF
LINE CONTROL
-6V
SOURCE REF
SOURCE CONTROL
MASTER REF
MASTER CONTROL
W803 5P (WHT)
C.B
G
R
B
+5V
W605 3P (WHT)
+6V
INPUT SELECT
GND
W001 3P (WHT)
+5V
INPUT SELECT
-5V
W904 4P (WHT)
ART. REVERCE
ART. MIN
ART. CONT
ART. MAX
W201 3P (WHT)
PH. ⊕
PH. CONT
PH. ⊖
W402 6P (WHT)
ΔY₇. BLK
ΔY₇. CONT
ΔY₇. WHT
C₇. BLK
C₇. CONT
C₇. WHT
W401 3P (WHT)
C. CONT ⊕
C. CONT
C. CONT ⊖
W902 2P (WHT)
N/P
GND
MIC LEVEL RV601 10k-1B
LINE LEVEL RV602 10k-1B
SOURCE LEVEL RV603 10k-1B
MASTER RV604 10k-1B
AUDIO MIXER
D704 1SS119
D701 1SS119
D707 1SS119
D709 1SS119
D705 1SS119
D708 1SS119
D706 1SS119
D702 1SS119
D703 1SS119
R701 470
Y CY G MG R
W B
COLOR BAR
BLK
S701
BACK COLOR SELECT
AM-12 BOARD
R386 47k
INPUT SELECT
S351
ON S352
OFF
R388 470
R387 47k
REVERSE
R383 1200
R382 1200
R381 1200
D372 SLR34YC3 (YELLOW)
D371 SLR34YC3 (YELLOW)
D373 SLR34UR3 (RED)
VIDEO ART
RV363 10k-1B
PHASE CORRECT RV361 1k-1B
GAMMA RV362 10k-4B X2
COLOR RV364 1k-1B
REVERSE (NEGA/POSI)
S353 ON OFF
R385 47k
R384 470
FT-32 BO
W604 3P (WHT)
MIC. IN (X)
MIC. IN GND
MIC. SWITCH
(See page 55.) TO SA-25 BOARD CN604
(RED)
MIC
J601
D611 RD9.1EW
MJ-14 BOARD
TO SA-25 BOARD CN801 (See page 50.)
(See page 50.) TO SA-25 BOARD CN802
(See page 39.) TO CY-2 BOARD CN903
(See page 32.) TO CY-2 BOARD CN403
(See page 57.) TO SA-25 BOARD CN608
(See page 39.) TO CY-2 BOARD CN901
W801 4P (WHT)
WIPE. H. CONT
WIPE. V. CONT
WIPE. V. CONT
WIPE. H. CONT
W802 3P (WHT)
WIPE. MAX
WIPE. CONT
WIPE. MIN
W903 5P (WHT)
+5V
CC. W/N
GND
CC. ON/OFF
-5V
W403 4P (WHT)
ΔY ⊖
B-Y
R-Y
ΔY ⊕
W608 3P (WHT)
FADER REF
FADER CONT
-6V
W901 2P (WHT)
B/W DETECT
FADER ON/OFF
WC-3 BOARD
R332 470
R331 470
D323 SLR34PC3 (GREEN)
D321 SLR34PC3 (GREEN)
R334 470
D322 SLR34PC3 (GREEN)
ON S301 OFF
ON S303 OFF
ON S302 OFF
ON S304 OFF
R333 470
D324 SLR34PC3 (GREEN)
BACK COLOR SELECT
BACK COLOR GENERATOR
WIPE RV311 1k-1B
ON/OFF
ON S305
R342 47k
WIDE RANGE
ON S306
R343 47k
OFF
R341 470
R335 470
D325 SLR34UR3 (RED)
D326 SLR34YC3 (YELLOW)
ON/OFF
COLOR CORRECT RV312 1k-1B X2
COLOR CORRECT
FADER RV313 20k-1B X2
FADER
S307 ON OFF
VIDEO
R336 470
R339 470
D327 SLR34UR3
D328 SLR34UR3
S308 ON OFF
AUDIO


7
8
9
10
11
12
13
14
15
16
17
18
A
B
C
D
E
F
G
H
I
(See page 57.)
TO SA-25 BOARD CN605
W605 3P (WHT)
YEL
GRY
GRY
+6V
INPUT SELECT
GND
(See page 39.)
TO CY-2 BOARD CN001
W001 3P (WHT)
+5V
INPUT SELECT
-5V
(See page 41.)
TO VP-8 BOARD CN904
W904 4P (WHT)
ART. REVERCE
ART. MIN
ART. CONT
ART. MAX
(See page 29.)
TO CY-2 BOARD CN201
W201 3P (WHT)
PH. ⊕
PH. CONT
PH. ⊖
(See page 32.)
TO CY-2 BOARD CN402
W402 6P (WHT)
ΔY1. BLK
ΔY1. CONT
ΔY1. WHT
C1. BLK
C1. CONT
C1. WHT
(See page 32.)
TO CY-2 BOARD CN401
W401 3P (WHT)
C. CONT ⊕
C. CONT
C. CONT ⊖
(See page 39.)
TO CY-2 BOARD CN902
W902 2P (WHT)
N/P
GND
WHT
R701 470
D706 1SS119
MG
R
B
BLK
M-12 BOARD
R386 47k
INPUT SELECT
S351 2
1
ON S352
OFF
R387 47k
R388 470
R383 1200
REVERSE
R382 1200
R381 1200
2
1
D372 SLR34YC3 (YELLOW)
D371 SLR34YC3 (YELLOW)
D373 SLR34UR3 (RED)
VIDEO ART
VIDEO ART
RV363 10k-1B
PHASE CORRECT
RV361 1k-1B
GAMMA
RV362 10k-4B X2
COLOR
RV364 1k-1B
REVERSE (NEGA/POSI)
S353 ON
OFF
R385 47k
R384 470
D374 SLR34YC3 (YELLOW)
REVERSE (NEGA/POSI)
FT-32 BOARD
See page 50.)
O SA-25 BOARD CN802
W802 3P (WHT)
GRY
WIPE. MAX
WIPE. CONT
WIPE. MIN
WIPE
RV311 1k-1B
(See page 39.)
TO CY-2 BOARD CN903
W903 5P (WHT)
+5V
CC. W/N
GND
CC. ON/OFF
-5V
ON/OFF
ON S305
OFF
R341 470
R335 470
R342 47k
WIDE RANGE
ON S306
OFF
R343 47k
D325 SLR34UR3 (RED)
D326 SLR34YC3 (YELLOW)
ON/OFF
(See page 32.)
TO CY-2 BOARD CN403
W403 4P (WHT)
ΔY ⊖
B-Y
R-Y
ΔY ⊕
COLOR CORRECT
RV312 1k-1B X2
COLOR CORRECT
(See page 57.)
TO SA-25 BOARD CN608
W608 3P (WHT)
RED
FADER REF
FADER CONT
-6V
FADER
RV313 20k-1B X2
(See page 39.)
TO CY-2 BOARD CN901
W901 2P (WHT)
B/W DETECT
FADER ON/OFF
S307 ON
OFF
R336 470
R339 470
D327 SLR34UR3
D328 SLR34UR3
S308 ON
OFF
VIDEO
AUDIO
FADER
WC-3 BOARD

Note:

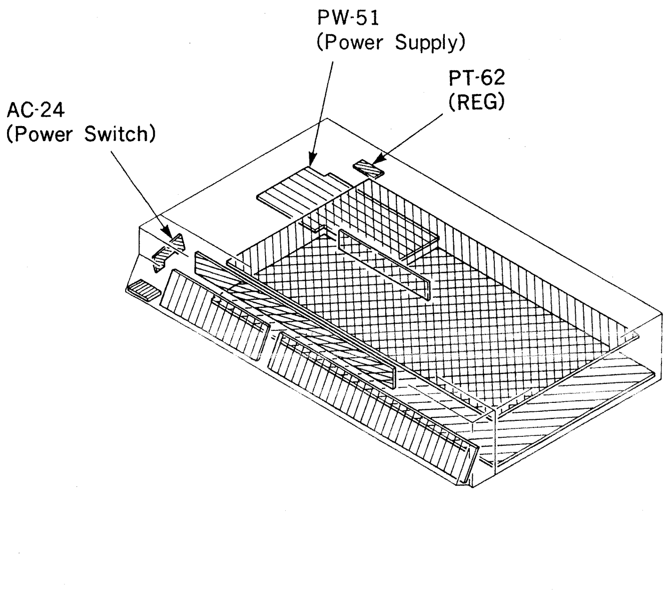
- All resistors are in ohms, 1/4W unless otherwise noted. kΩ: 1000Ω, MΩ: 1000kΩ.
- All capacitors are in μF unless otherwise noted. pF : μμF. 50V or less are not indicated except for electrolytics. and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- ☐ : panel designation.
- △ : internal component.
- ☐ : adjustment for repair.
- ━━━ : B + bus.
- ╍╍╍ : B – bus.
- ⇨ : IN/OUT direction of +B, –B bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltage variations may be noted due to normal production tolerances.
- Voltage and waveform measuring conditions.
  Receive an PAL color bar signal on SOURCE VIDEO 1 terminal.
  INPUT SELECT SWITCH : 1
  VIDEO ART VOLUME : MAX
  REVERSE SWITCH : OFF
  REVERSE (NEGA/POSI) SWITCH : OFF
  COLOR SELECT SWITCH : COLOR BAR
  WIPE PATTERN ◨ : ON
  WIPE PATTERN ◧ : ON
  WIPE PATTERN ⬓ : ON
  WIPE PATTERN ⬒ : ON
  WIPE KNOB : MIN
  COLOR CORRECT SWITCH : ON
  WIDE RANGE SWITCH : OFF
  FADER VIDEO SWITCH : ON
  FADER AUDIO SWITCH : ON
  WHITE CLIP SWITCH : ON
  Set the control knob to the mechanical center position unless otherwise noted.

When indicating parts by reference number, please include the board name.

Note:

- ○— : indicates a lead wire mounted on the component side.
- ●— : indicates a lead wire mounted on the printed side.
- ▨ : soldering side.

When indicating parts by reference number, please include the board name.

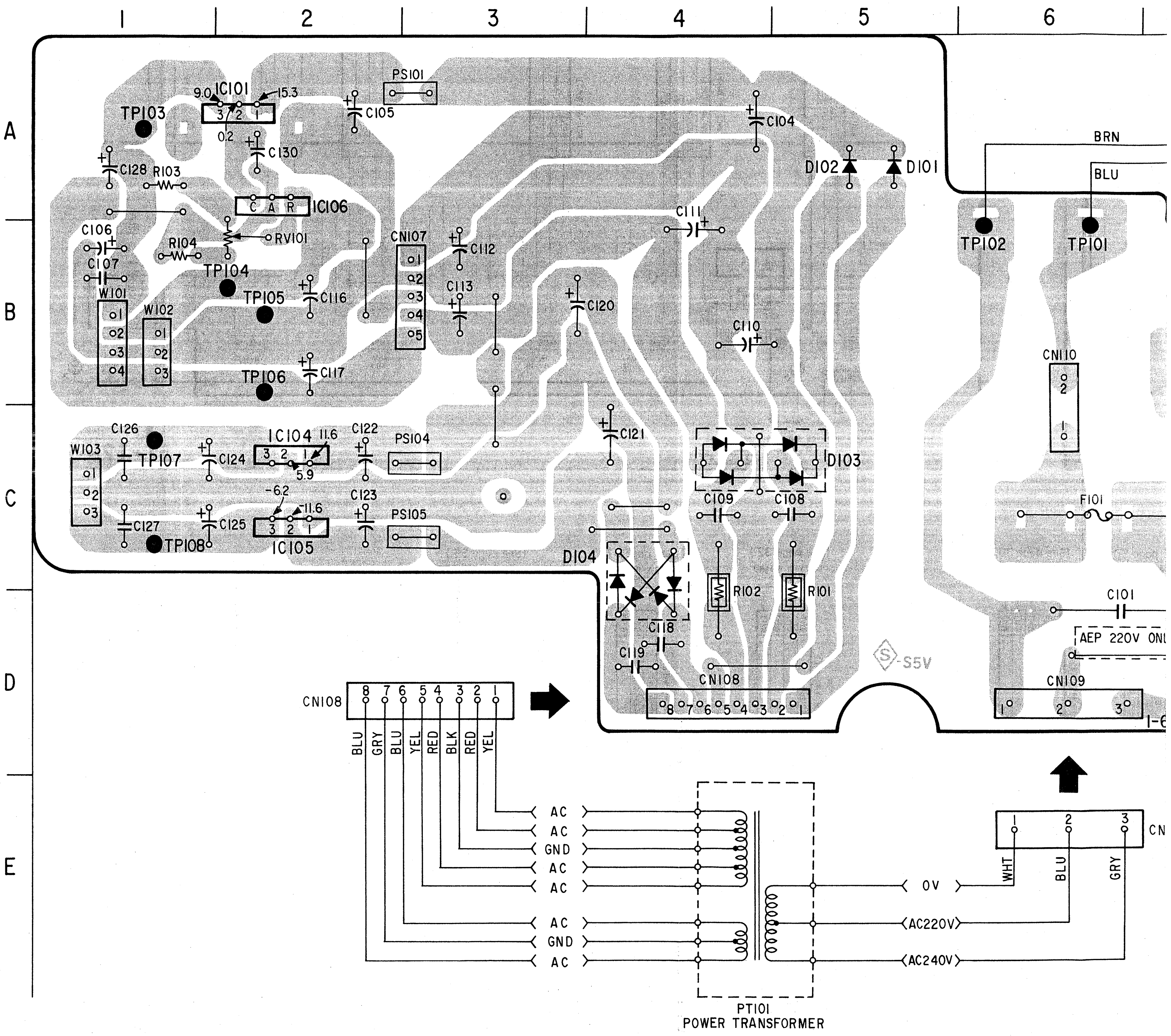

PW-51
(Power Supply)
PT-62
(REG)
AC-24
(Power Switch)

CN107	B-3
CN108	D-4
CN109	D-6
CN110	B-6
D101	A-5
D102	A-5
D103	C-5
D104	C-4
IC101	A-2
IC104	C-2
IC105	C-2
IC106	A-2
RV101	B-2
TP101	B-6
TP102	B-6
TP103	A-1
TP104	B-2
TP105	B-2
TP106	B-2
TP107	C-1
TP108	C-1
W101	B-1
W102	B-1
W103	C-1

AC-24 (POWER SWITCH), PT-62 (REG), PW-51 (POWER SUPPLY) PRINTED WIRING BOARDS

—Ref. No. AC-24, PT-62 and PW-51 BOARDS : 8, 000 series—

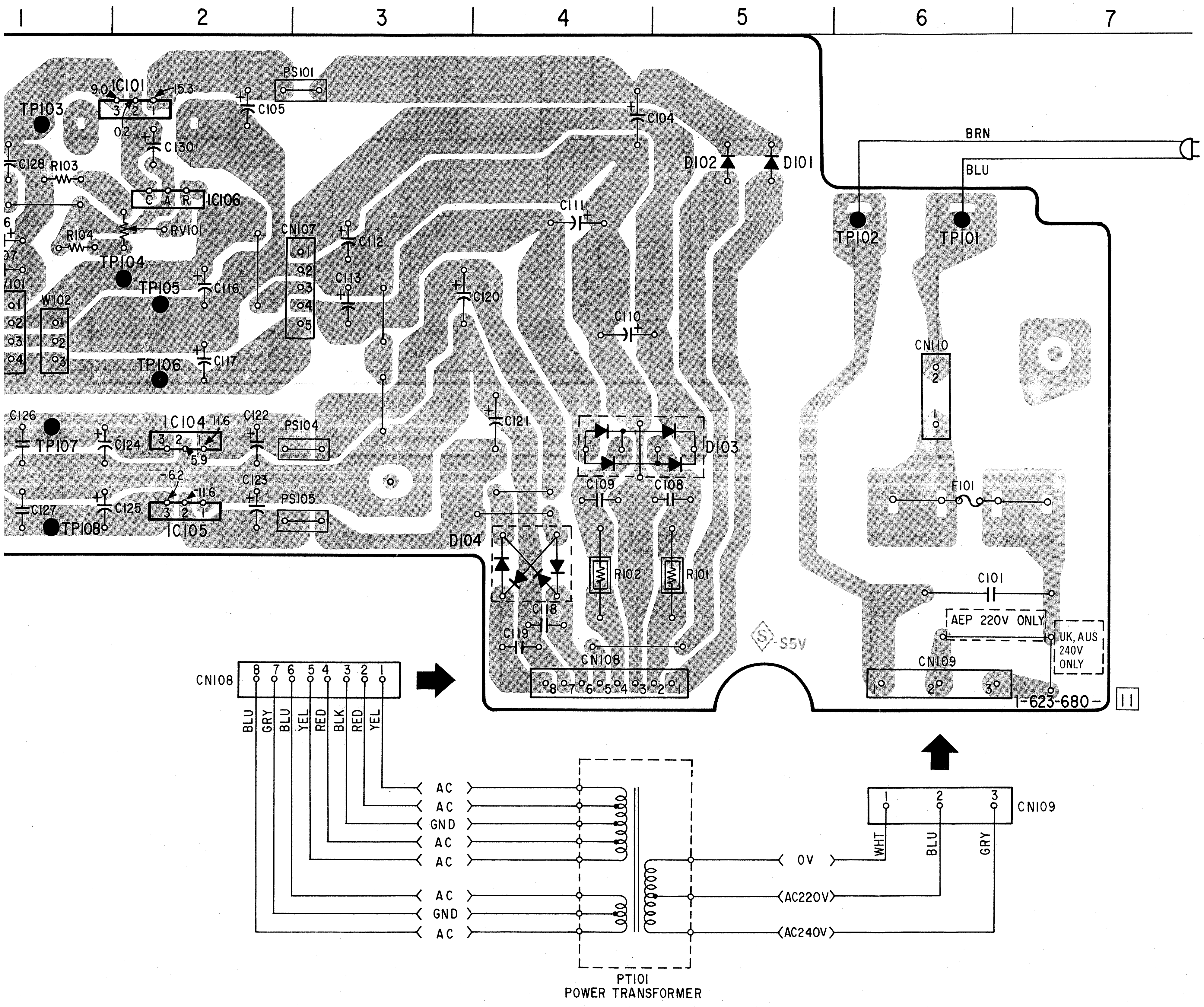
PW-51 BOARD


1
2
3
4
5
6
A
B
C
D
E
TP103
9.0
IC101
15.3
0.2
PS101
C105
C130
C104
C128
R103
IC106
C A R
D102
D101
BRN
BLU
C106
C107
R104
RV101
TP104
CN107
C112
C111
TP102
TP101
W101
W102
TP105
C116
C113
C120
C110
TP106
C117
CN110
C126
W103
TP107
C124
IC104
11.6
5.9
C122
PS104
C121
D103
-6.2
11.6
C123
C109
C108
F101
C127
TP108
C125
IC105
PS105
D104
R102
R101
C101
C118
C119
S5V
AEP 220V ONL
CN108
CN109
CN108
8 7 6 5 4 3 2 1
BLU
GRY
BLU
YEL
RED
BLK
RED
YEL
AC
AC
GND
AC
AC
AC
GND
AC
0V
AC220V
AC240V
WHT
BLU
GRY
1
2
3
CN
PT101
POWER TRANSFORMER

WER SWITCH), PT-62 (REG), PW-51 (POWER SUPPLY) PRINTED WIRING BOARDS

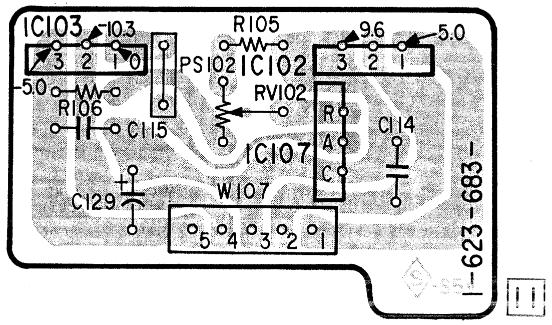
-24, PT-62 and PW-51 BOARDS : 8, 000 series—

51 BOARD



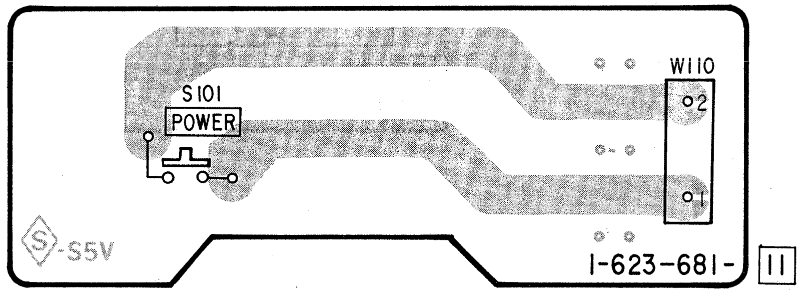
1
2
3
4
5
6
7
IC101
9.0
15.3
0.2
TP103
C105
PS101
C104
C130
C128
R103
IC106
C A R
D102
D101
BRN
BLU
AC IN
R104
RV101
CN107
C111
C112
TP104
TP105
C113
C116
C120
TP102
TP101
W102
C110
CN110
TP106
C117
C121
C126
IC104
11.6
C122
PS104
TP107
C124
5.9
D103
-6.2
C123
C109
C108
F101
C127
C125
11.6
PS105
TP108
IC105
D104
R102
R101
C101
C118
AEP 220V ONLY
UK, AUS 240V ONLY
C119
S5V
CN108
CN109
1-623-680-
11
CN108
8 7 6 5 4 3 2 1
BLU
GRY
BLU
YEL
RED
BLK
RED
YEL
AC
AC
GND
AC
AC
AC
GND
AC
0V
AC220V
AC240V
CN109
1 2 3
WHT
BLU
GRY
PT101
POWER TRANSFORMER

PT-62 BOARD



IC103
-10.3
R105
9.6
5.0
3 2 1 0
PS102
IC102
3 2 1
-5.0
R106
RV102
C115
R A C
C114
IC107
C129
W107
5 4 3 2 1
1-623-683-
S5V
11

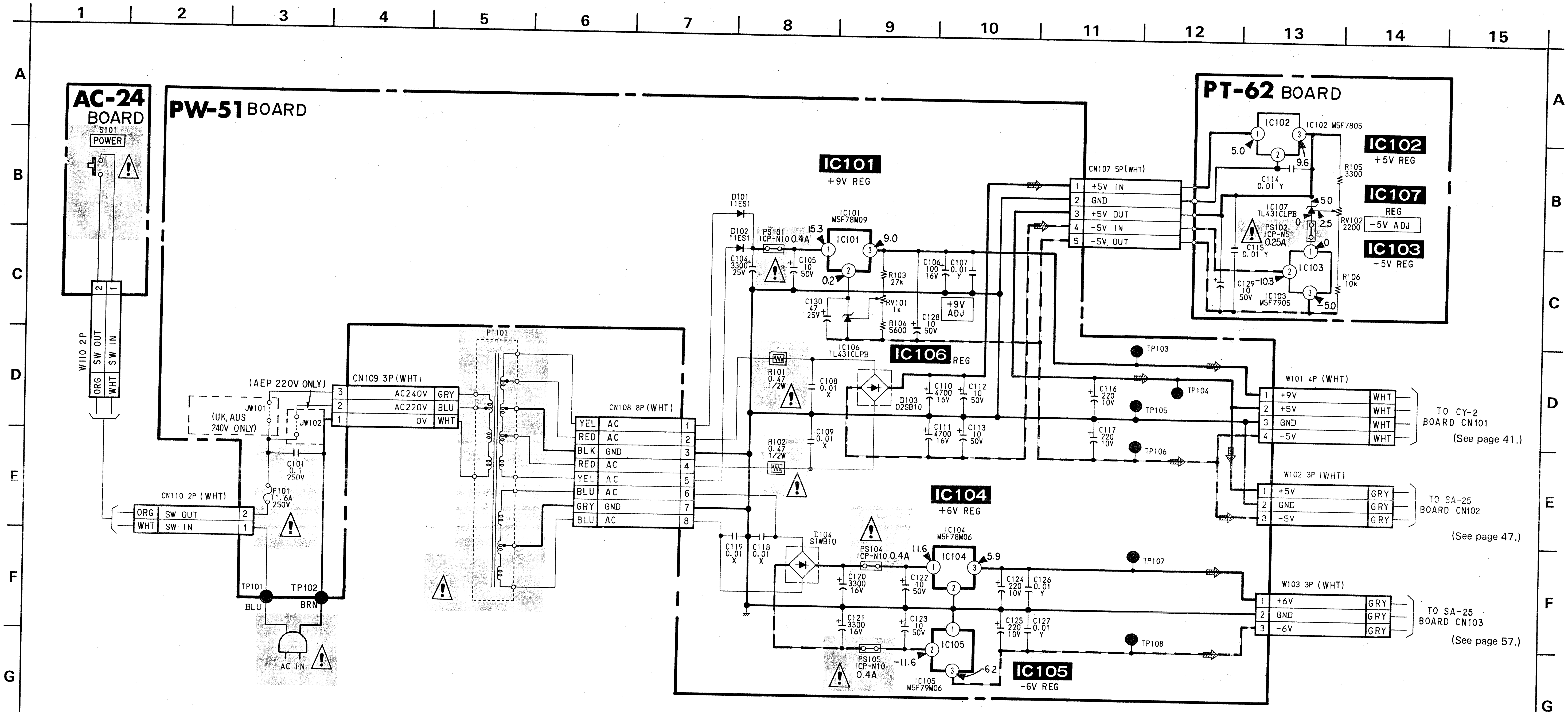
AC-24 BOARD



S101
POWER
W110
2
1
S5V
1-623-681-
11

AC-24 (POWER SWITCH), PT-62 (REG), PW-51 (POWER SUPPLY) SCHEMATIC DIAGRAM

—Ref. No. AC-24, PT-62 and PW-51 BOARDS : 8, 000 series—



AC-24 BOARD
S101 POWER
W110 2P
ORG SW OUT
WHT SW IN
PW-51 BOARD
(AEP 220V ONLY)
(UK, AUS 240V ONLY)
JW101
JW102
CN109 3P (WHT)
AC240V GRY
AC220V BLU
0V WHT
C101 0.1 250V
F101 T1.6A 250V
CN110 2P (WHT)
TP101 BLU
TP102 BRN
AC IN
PT101
CN108 8P (WHT)
YEL AC
RED AC
BLK GND
RED AC
YEL AC
BLU AC
GRY GND
BLU AC
D101 11ES1
D102 11ES1
PS101 ICP-N10 0.4A
C104 3300 25V
C105 10 50V
IC101 M5F78M09
IC101 +9V REG
15.3
9.0
0
R103 27k
C106 100 16V
C107 0.01 Y
C130 47 25V
RV101 1k
R104 5600
C128 10 50V
+9V ADJ
IC106 TL431CLPB
IC106 REG
R101 0.47 1/2W
C108 0.01 X
D103 D2SB10
C110 4700 16V
C112 10 50V
C111 4700 16V
C113 10 50V
R102 0.47 1/2W
C109 0.01 X
C116 220 10V
C117 220 10V
TP103
TP104
TP105
TP106
IC104 +6V REG
C119 0.01 X
C118 0.01 X
D104 S1WB10
PS104 ICP-N10 0.4A
IC104 M5F78M06
11.6
5.9
C120 3300 16V
C122 10 50V
C124 220 10V
C126 0.01 Y
TP107
C121 3300 16V
C123 10 50V
C125 220 10V
C127 0.01 Y
TP108
PS105 ICP-N10 0.4A
-11.6
-6.2
IC105 M5F79M06
IC105 -6V REG
CN107 5P (WHT)
1 +5V IN
2 GND
3 +5V OUT
4 -5V IN
5 -5V OUT
PT-62 BOARD
IC102 M5F7805
IC102 +5V REG
5.0
9.6
R105 3300
C114 0.01 Y
IC107 TL431CLPB
IC107 REG
PS102 ICP-N5 0.25A
C115 0.01 Y
2.5
RV102 2200
-5V ADJ
IC103 -5V REG
C129 10 50V
-10.3
IC103 M5F7905
-5.0
R106 10k
W101 4P (WHT)
1 +9V WHT
2 +5V WHT
3 GND WHT
4 -5V WHT
TO CY-2 BOARD CN101
(See page 41.)
W102 3P (WHT)
1 +5V GRY
2 GND GRY
3 -5V GRY
TO SA-25 BOARD CN102
(See page 47.)
W103 3P (WHT)
1 +6V GRY
2 GND GRY
3 -6V GRY
TO SA-25 BOARD CN103
(See page 57.)

Note:

- All resistors are in ohms, 1/4W unless otherwise noted. kΩ: 1000Ω, MΩ: 1000kΩ.
- All capacitors are in μF unless otherwise noted. pF : μμF. 50V or less are not indicated except for electrolytics. and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- ▭ : panel designation.
- △ : internal component.

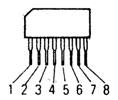
- ▭ : adjustment for repair.
- ━━ : B + bus.
- ╍╍ : B – bus.
- ⇨ : IN/OUT direction of +B, –B bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltage variations may be noted due to normal production tolerances.

When indicating parts by reference number, please include the board name.

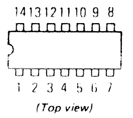
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

4-3. SEMICONDUCTORS

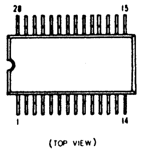
CX20061
M51848L



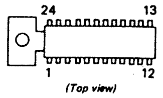
CX20186
TA7158P
TC74HC00P
TC74HC02P
TC74HC08P
TC74HC11P
TC74HC20P
UPC319C
UPC324C
UPD4066BC


14 13 12 11 10 9 8
1 2 3 4 5 6 7
(Top view)

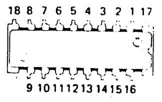
CX-7930A


28
15
1
14
(TOP VIEW)

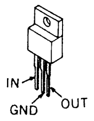
CX-810


24
13
1
12
(Top view)

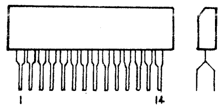
HA11441


18 8 7 6 5 4 3 2 1 17
9 10 11 12 13 14 15 16

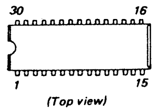
M5F78M06
M5F78M09
M5F79M06
M5F7805
M5F7905



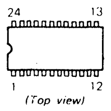
M51131L



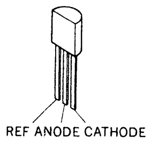
M51271SP


30
16
1
15
(Top view)

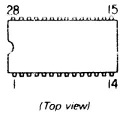
M51272SP


24
13
1
12
(Top view)

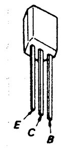
TL431CLPB


REF ANODE CATHODE

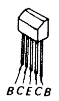
V7040


28
15
1
14
(Top view)

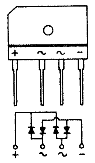
DTA114ES
DTA114ES-TP
DTC114ES
DTC144ES
2SA1048-GR
2SC634SP



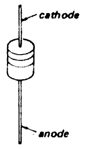
2SA979
2SC2259



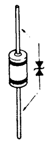
D2SB10



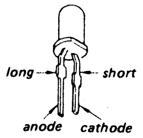
RD5.1ES
1SS119
11ES2


cathode
anode

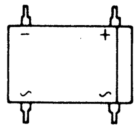
RD9.1EW



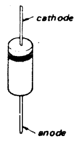
SLR-34PC3
SLR-34UR3
TLY123


long
short
anode
cathode

S1WB40



1T25-3


cathode
anode

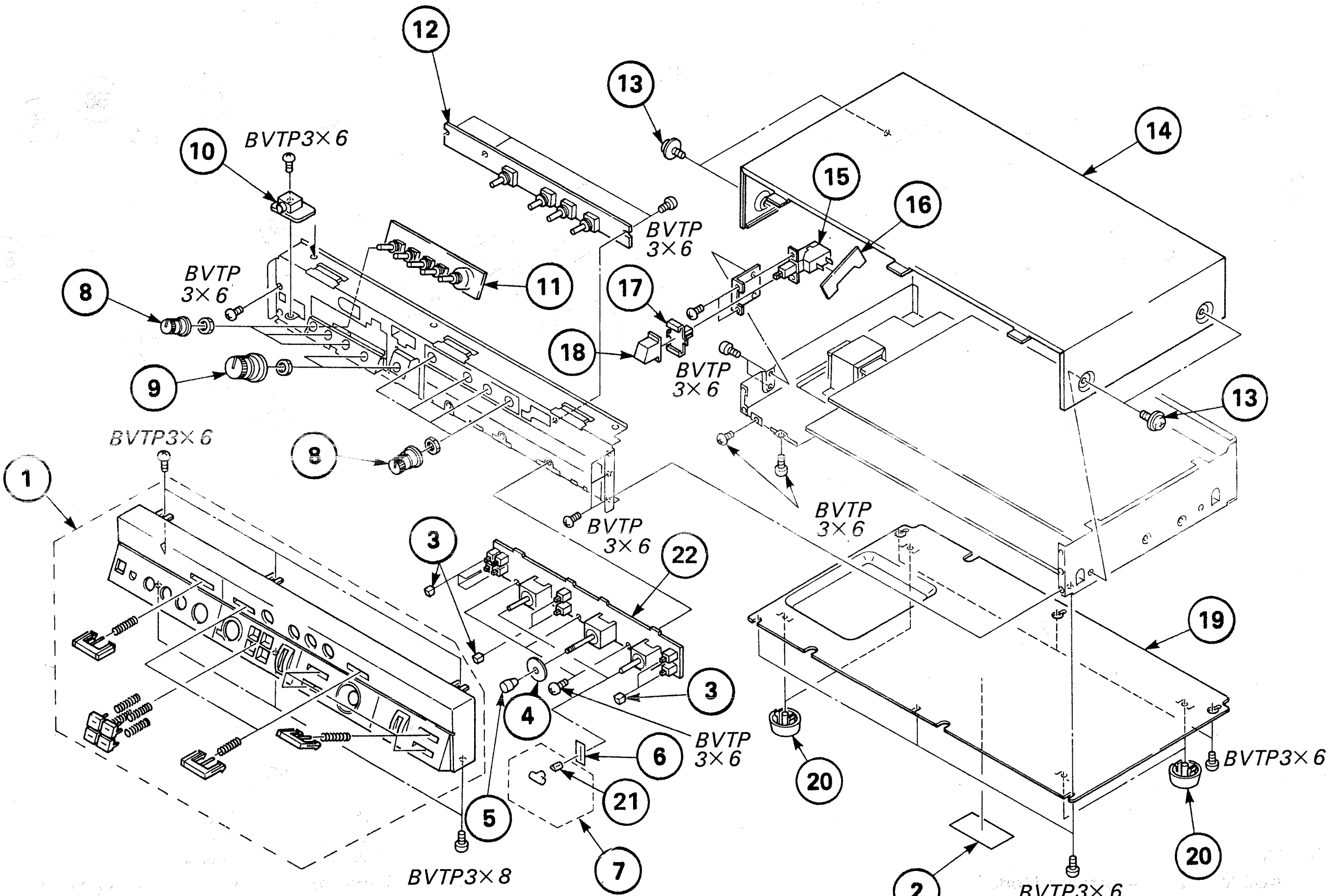
SECTION 5
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X mean standardized parts, so they may have some differences from the original one.

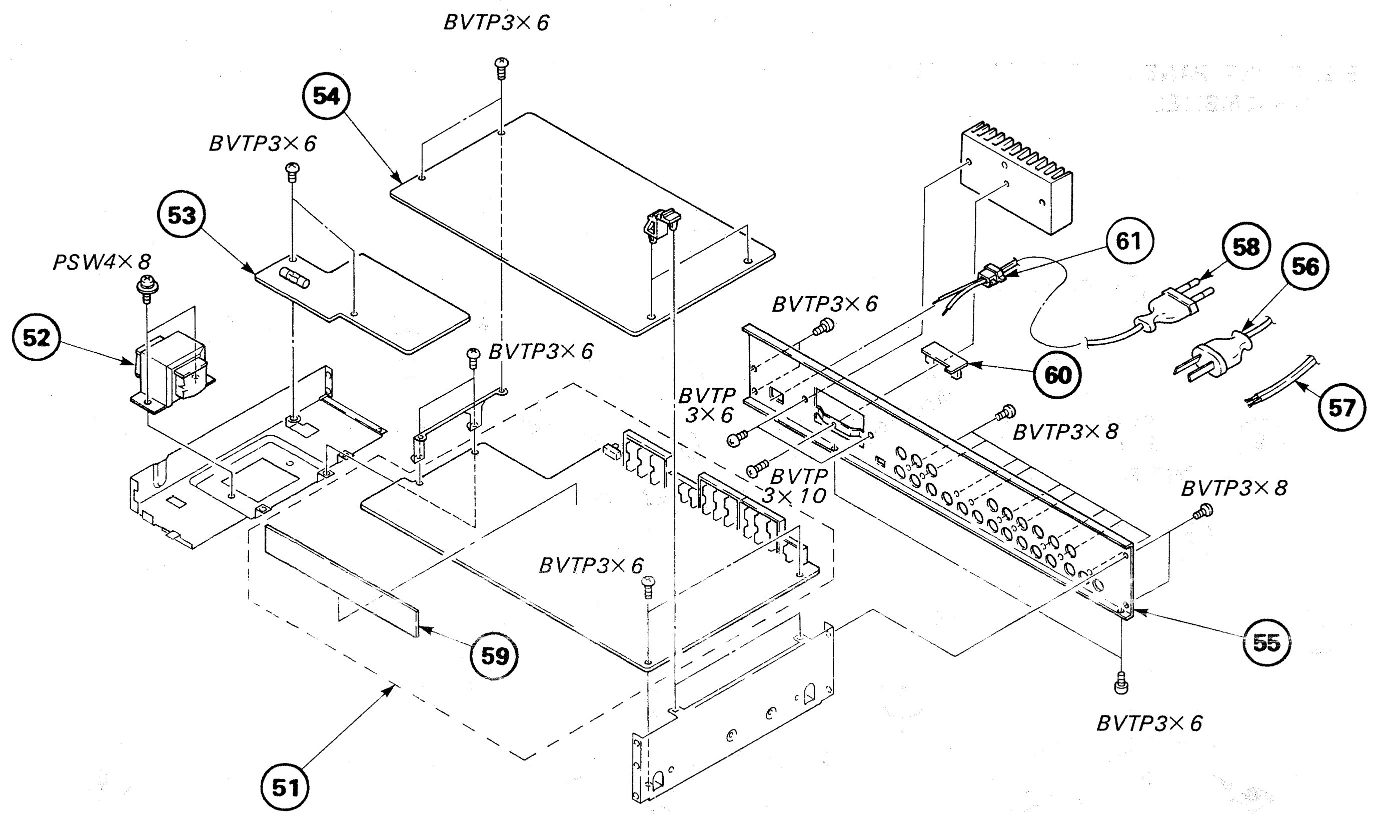
The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

5-1. FRONT PANEL AND CASE(UPPER, LOWER) ASSEMBLIES



No.	Part No.	Description	Remark
1	X-2118-216-1	PANEL ASSY, FRONT	
2	*2-118-271-01	LABEL, MODEL NUMBER	
3	2-118-220-01	JOINT	
4	2-118-243-01	SHEET, JOY STICK	
5	2-118-210-01	GRIP	
6	2-118-209-01	SHEET, LEVER	
7	X-2118-213-1	KNOB ASSY, FADER	21
8	X-2118-215-1	KNOB (S) ASSY, VOL	
9	X-2118-214-1	KNOB (L) ASSY, VOL	
10	*1-623-678-11	MJ-14 BOARD	
11	*1-623-682-11	AM-12 BOARD	
12	*1-623-675-11	FT-32 BOARD	
13	4-847-802-00	SCREW, CASE	
14	2-118-229-01	CASE	
15	⚠1-553-318-11	SWITCH, PUSH (AC POWER)(1KEY)(S101)	
16	*1-623-681-11	AC-24 BOARD	
17	2-118-218-01	JOINTER	
18	2-118-215-01	BUTTON (POWER)	
19	*2-374-619-11	PLATE, BOTTOM	
20	X-3701-069-0	FOOT ASSY, M.F	
21	2-118-246-01	KNOB, FADER	
22	*A-7070-560-A	WC-3 BOARD, COMPLETE	

5-2. CHASSIS ASSEMBLY


BVTP3×6
54
BVTP3×6
53
PSW4×8
52
BVTP3×6
BVTP3×6
61
58
56
BVTP 3×6
60
57
BVTP 3×10
BVTP3×8
BVTP3×8
BVTP3×6
59
55
BVTP3×6
51

HARD WARE LIST

SCREW

7-682-147-01	SCREW +P 3X6
7-682-661-09	SCREW +PSW 4X8
7-685-645-79	SCREW +BVTP 3×6 TYPE2
7-685-646-79	SCREW +BVTP 3×8 TYPE2
7-685-647-79	SCREW +BVTP 3×10 TYPE2

- Model Identification
  AUS MODEL: Australian Model

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

No.	Part No.	Description	Remark
51	*A-7060-999-A	CY-2, BOARD, COMPLETE	59
52 ⚠	1-448-998-11	TRANSFORMER, POWER	
53	*A-7070-557-A	PW-51 BOARD, COMPLETE (UK, AUS MODEL)	
53	*A-7070-558-A	PW-51 BOARD, COMPLETE (AEP MODEL)	
54	*A-7060-998-A	SA-25 BOARD, COMPLETE	
55	2-118-283-01	PLATE, JACK	
56 ⚠	*1-551-732-00	CORD, POWER (AUS MODEL)	
57 ⚠	*1-551-884-00	CORD, POWER (UK MODEL)	
58 ⚠	1-555-795-00	CORD, POWER (AEP MODEL)	
59	*A-7070-565-A	VP-8 BOARD, COMPLETE	
60	*1-623-683-11	PT-62 BOARD	
61 ⚠	3-703-244-02	BUSHING (2104), CORD	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X, mean standardized parts, so they may have some difference from the original one.
- SEMIDONDUCTORS
  In each case, U: μ, for example:
  UA. . .: μA. . ., UPA. . .: μPA. . ., UPB. . .: μPB. . ., UPC. . .: μPC. . ., UPD. . .: μPD. . .
- CAPACITORS
  MF: μF, PF: μμF
- COILS
  MMH: mH, UH: μH

Ref.No	Part No.	Description	Remark		
	*A-7060-998-A	SA-25 BOARD, COMPLETE *************			
	*2-352-113-01	CASE, SHIELD			
	*2-374-626-00	PLATE, SHIELD			
	*3-684-367-01	HINGE, PCB			
	7-685-645-79	SCREW BVTP 3X6 TYPE2			
		FILTER			
BP701	1-425-831-00	COIL BPT-1			
		CAPACITOR			
C101	1-124-443-00	ELECT	100MF	20%	10V
C102	1-124-443-00	ELECT	100MF	20%	10V
C105	1-102-106-00	CERAMIC	100P	10%	50V
C106	1-123-611-00	ELECT	1MF	20%	50V
C107	1-124-462-00	ELECT	10MF	20%	16V
C108	1-102-114-00	CERAMIC	470PF	10%	50V
C109	1-162-851-11	CERAMIC	0.1MF	10%	16V
C110	1-124-462-00	ELECT	10MF	20%	16V
C111	1-124-446-11	ELECT	47MF	20%	10V
C112	1-161-379-00	CERAMIC	0.01MF	30%	16V
C113	1-161-379-00	CERAMIC	0.01MF	30%	16V
C114	1-161-379-00	CERAMIC	0.01MF	30%	16V
C115	1-101-361-00	CERAMIC	150PF	5%	50V
C116	1-102-973-00	CERAMIC	100PF	5%	50V
C117	1-161-379-00	CERAMIC	0.01MF	30%	16V
C118	1-161-379-00	CERAMIC	0.01MF	30%	16V
C119	1-102-971-00	CERAMIC	82PF	5%	50V
C120	1-102-963-00	CERAMIC	33PF	5%	50V
C121	1-161-379-00	CERAMIC	0.01MF	30%	16V
C122	1-161-379-00	CERAMIC	0.01MF	30%	16V
C123	1-102-110-00	CERAMIC	220PF	10%	50V
C124	1-130-477-00	MYLAR	0.0033MF	10%	50V
C125	1-161-379-00	CERAMIC	0.01MF	30%	16V
C126	1-124-443-00	ELECT	100MF	20%	10V
C127	1-102-110-00	CERAMIC	220PF	10%	50V
C128	1-124-245-00	ELECT	4.7MF	20%	25V
C129	1-136-155-00	MYLAR	0.015MF	10%	50V
C130	1-136-161-00	MYLAR	0.047MF	10%	50V
C131	1-124-245-00	ELECT	4.7MF	20%	25V
C132	1-136-155-00	MYLAR	0.015MF	10%	50V
C133	1-130-473-00	MYLAR	0.0015MF	10%	50V
C134	1-136-298-00	FILM	0.0033MF	5%	100V
C135	1-124-444-00	ELECT	220MF	20%	10V
C136	1-161-379-00	CERAMIC	0.01MF	30%	16V
C137	1-161-379-00	CERAMIC	0.01MF	30%	16V
C138	1-136-298-00	FILM	0.0033MF	5%	100V
C139	1-136-481-00	FILM	0.0022MF	5%	100V
C140	1-124-446-11	ELECT	47MF	20%	10V
C141	1-102-959-00	CERAMIC	22PF	5%	50V
C142	1-102-963-00	CERAMIC	33PF	5%	50V
C145	1-161-379-00	CERAMIC	0.01MF	30%	16V
C146	1-130-072-00	FILM	0.022MF	5%	100V
C148	1-124-446-11	ELECT	47MF	20%	10V
C149	1-124-446-11	ELECT	47MF	20%	10V
C150	1-124-446-11	ELECT	47MF	20%	10V
C151	1-102-963-00	CERAMIC	33PF	5%	50V
C152	1-161-379-00	CERAMIC	0.01MF	30%	16V
C154	1-124-446-11	ELECT	47MF	20%	10V
C155	1-124-446-11	ELECT	47MF	20%	10V
C156	1-161-379-00	CERAMIC	0.01MF	30%	16V
C158	1-102-114-00	CERAMIC	470PF	10%	50V
C159	1-162-294-00		1000PF		
C601	1-124-462-00	ELECT	10MF	20%	16V
C602	1-124-462-00	ELECT	10MF	20%	16V
C603	1-161-379-00	CERAMIC	0.01MF	30%	16V
C604	1-124-462-00	ELECT	10MF	20%	16V
C605	1-161-379-00	CERAMIC	0.01MF	30%	16V
C606	1-124-462-00	ELECT	10MF	20%	16V
C607	1-161-379-00	CERAMIC	0.01MF	30%	16V
C608	1-124-462-00	ELECT	10MF	20%	16V
C609	1-124-462-00	ELECT	10MF	20%	16V
C610	1-124-462-00	ELECT	10MF	20%	16V
C611	1-162-851-00	CERAMIC	0.1MF	10%	16V
C612	1-124-444-00	ELECT	220MF	20%	10V
C613	1-162-851-00	CERAMIC	0.1MF	10%	16V
C614	1-124-444-00	ELECT	220MF	20%	10V
C615	1-124-462-00	ELECT	10MF	20%	16V
C616	1-124-462-00	ELECT	10MF	20%	16V
C617	1-161-379-00	CERAMIC	0.01MF	30%	16V
C618	1-124-462-00	ELECT	10MF	20%	16V
C619	1-161-379-00	CERAMIC	0.01MF	30%	16V
C620	1-124-462-00	ELECT	10MF	20%	16V
C621	1-124-462-00	ELECT	10MF	20%	16V
C622	1-124-462-00	ELECT	10MF	20%	16V
C623	1-161-379-00	CERAMIC	0.01MF	30%	16V
C624	1-124-462-00	ELECT	10MF	20%	16V
C625	1-123-818-00	ELECT	22MF	20%	25V
C626	1-124-245-00	ELECT	4.7MF	20%	25V
C627	1-124-462-00	ELECT	10MF	20%	16V
C628	1-124-462-00	ELECT	10MF	20%	16V
C629	1-161-379-00	CERAMIC	0.01MF	30%	16V
C630	1-124-462-00	ELECT	10MF	20%	16V
C631	1-123-818-00	ELECT	22MF	20%	25V
C632	1-124-245-00	ELECT	4.7MF	20%	25V
C633	1-124-462-00	ELECT	10MF	20%	16V
C634	1-124-462-00	ELECT	10MF	20%	16V
C635	1-124-462-00	ELECT	10MF	20%	16V
C636	1-124-462-00	ELECT	10MF	20%	16V
C637	1-124-462-00	ELECT	10MF	20%	16V
C638	1-102-110-00	CERAMIC	220PF	10%	50V

Ref.No	Part No.	Description			Remark
C639	1-102-110-00	CERAMIC	220PF	10%	50V
C640	1-124-462-00	ELECT	10MF	20%	16V
C641	1-124-462-00	ELECT	10MF	20%	16V
C642	1-161-379-00	CERAMIC	0.01MF	30%	16V
C643	1-124-462-00	ELECT	10MF	20%	16V
C644	1-123-818-00	ELECT	22MF	20%	25V
C645	1-124-245-00	ELECT	4.7MF	20%	25V
C646	1-124-462-00	ELECT	10MF	20%	16V
C647	1-124-462-00	ELECT	10MF	20%	16V
C648	1-161-379-00	CERAMIC	0.01MF	30%	16V
C649	1-124-462-00	ELECT	10MF	20%	16V
C650	1-123-818-00	ELECT	22MF	20%	25V
C651	1-124-245-00	ELECT	4.7MF	20%	25V
C652	1-124-462-00	ELECT	10MF	20%	16V
C653	1-124-462-00	ELECT	10MF	20%	16V
C654	1-123-611-00	ELECT	1MF	20%	50V
C655	1-124-462-00	ELECT	10MF	20%	16V
C656	1-102-106-00	CERAMIC	100PF	10%	50V
C657	1-124-462-00	ELECT	10MF	20%	16V
C658	1-102-106-00	CERAMIC	100PF	10%	50V
C659	1-161-379-00	CERAMIC	0.01MF	30%	16V
C660	1-124-462-00	ELECT	10MF	20%	16V
C661	1-123-818-00	ELECT	22MF	20%	25V
C662	1-124-245-00	ELECT	4.7MF	20%	25V
C663	1-124-462-00	ELECT	10MF	20%	16V
C664	1-161-379-00	CERAMIC	0.01MF	30%	16V
C665	1-124-462-00	ELECT	10MF	20%	16V
C666	1-124-462-00	ELECT	10MF	20%	16V
C667	1-124-462-00	ELECT	10MF	20%	16V
C668	1-124-462-00	ELECT	10MF	20%	16V
C669	1-124-462-00	ELECT	10MF	20%	16V
C670	1-124-462-00	ELECT	10MF	20%	16V
C671	1-124-462-00	ELECT	10MF	20%	16V
C672	1-124-462-00	ELECT	10MF	20%	16V
C673	1-124-462-00	ELECT	10MF	20%	16V
C674	1-124-462-00	ELECT	10MF	20%	16V
C675	1-124-462-00	ELECT	10MF	20%	16V
C676	1-126-101-11	ELECT	100MF	20%	16V
C677	1-124-462-00	ELECT	10MF	20%	16V
C678	1-161-379-00	CERAMIC	0.01MF	30%	16V
C679	1-124-462-00	ELECT	10MF	20%	16V
C680	1-161-379-00	CERAMIC	0.01MF	30%	16V
C701	1-124-443-00	ELECT	100MF	20%	10V
C702	1-161-379-00	CERAMIC	0.01MF	30%	16V
C703	1-101-361-00	CERAMIC	150PF	5%	50V
C704	1-101-361-00	CERAMIC	150PF	5%	50V
C706	1-124-443-00	ELECT	100MF	20%	10V
C707	1-161-379-00	CERAMIC	0.01MF	30%	16V
C708	1-131-348-00	TANTALUM	1.5MF	10%	20V
C709	1-123-611-00	ELECT	1MF	20%	50V
C710	1-161-379-00	CERAMIC	0.01MF	30%	16V
C711	1-161-379-00	CERAMIC	0.01MF	30%	16V
C712	1-124-462-00	ELECT	10MF	20%	16V
C713	1-131-348-00	TANTALUM	1.5MF	10%	20V
C714	1-123-611-00	ELECT	1MF	20%	50V
C715	1-102-816-00	CERAMIC	120PF	5%	50V
C716	1-130-471-00	MYLAR	0.001MF	10%	50V
C717	1-161-379-00	CERAMIC	0.01MF	30%	16V
C718	1-136-159-00	MYLAR	0.033MF	10%	50V
C719	1-136-159-00	MYLAR	0.033MF	10%	50V
C720	1-124-446-11	ELECT	47MF	20%	10V
C721	1-136-157-00	MYLAR	0.022MF	10%	50V
C722	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C723	1-102-115-00	CERAMIC	560PF	10%	50V
C724	1-161-379-00	CERAMIC	0.01MF	30%	16V

Ref.No	Part No.	Description			Remark
C725	1-161-379-00	CERAMIC	0.01MF	30%	16V
C726	1-124-443-00	ELECT	100MF	20%	10V
C727	1-161-379-00	CERAMIC	0.01MF	30%	16V
C728	1-102-961-00	CERAMIC	27PF	5%	50V
C729	1-161-379-00	CERAMIC	0.01MF	30%	16V
C730	1-102-973-00	CERAMIC	100PF	5%	50V
C731	1-102-109-00	CERAMIC	180PF	10%	50V
C732	1-102-973-00	CERAMIC	100PF	5%	50V
C734	1-162-851-00	CERAMIC	0.1MF	10%	16V
C735	1-161-379-00	CERAMIC	0.01MF	30%	16V
C736	1-131-368-00	TANTALUM	3.3MF	10%	16V
C737	1-124-446-11	ELECT	47MF	20%	10V
C738	1-123-611-00	ELECT	1MF	20%	50V
C739	1-162-851-00	CERAMIC	0.1MF	10%	16V
C740	1-162-851-00	CERAMIC	0.1MF	10%	16V
C741	1-162-851-00	CERAMIC	0.1MF	10%	16V
C742	1-124-443-00	ELECT	100MF	20%	10V
C743	1-162-851-00	CERAMIC	0.1MF	10%	16V
C744	1-161-379-00	CERAMIC	0.01MF	30%	16V
C745	1-124-446-11	ELECT	47MF	20%	10V
C746	1-136-169-00	MYLAR	0.22MF	10%	50V
C749	1-161-379-00	CERAMIC	0.01MF	30%	16V
C750	1-162-851-00	CERAMIC	0.1MF	10%	16V
C751	1-124-446-11	ELECT	47MF	20%	10V
C752	1-162-851-00	CERAMIC	0.1MF	10%	16V
C753	1-124-446-11	ELECT	47MF	20%	10V
C754	1-161-379-00	CERAMIC	0.01MF	30%	16V
C755	1-124-444-00	ELECT	220MF	20%	10V
C756	1-124-446-11	ELECT	47MF	20%	10V
C757	1-161-379-00	CERAMIC	0.01MF	30%	16V
C758	1-161-379-00	CERAMIC	0.01MF	30%	16V
C759	1-161-379-00	CERAMIC	0.01MF	30%	16V
C760	1-124-446-11	ELECT	47MF	20%	10V
C761	1-161-379-00	CERAMIC	0.01MF	30%	16V
C762	1-102-106-00	CERAMIC	100PF	10%	50V
C763	1-102-110-00	CERAMIC	220PF	10%	50V
C764	1-102-110-00	CERAMIC	220PF	10%	50V
C765	1-102-106-00	CERAMIC	100PF	10%	50V
C801	1-101-888-00	CERAMIC	68PF	5%	50V
C802	1-130-479-00	MYLAR	0.0047MF	10%	50V
C803	1-124-443-00	ELECT	100MF	20%	10V
C804	1-124-443-00	ELECT	0.47MF	20%	50V
C805	1-124-465-00	ELECT	0.47MF	20%	50V
C806	1-124-465-00	ELECT	0.47MF	20%	50V
C807	1-124-462-00	ELECT	10MF	20%	16V
C808	1-124-443-00	ELECT	100MF	20%	10V
C809	1-131-343-00	TANTALUM	0.22MF	10%	35V
C810	1-124-462-00	ELECT	10MF	20%	16V
C811	1-124-462-00	ELECT	10MF	20%	16V
C812	1-124-462-00	ELECT	10MF	20%	16V
C813	1-124-462-00	ELECT	10MF	20%	16V
C814	1-161-379-00	CERAMIC	0.01MF	30%	16V
C815	1-161-379-00	CERAMIC	0.01MF	30%	16V
C816	1-161-379-00	CERAMIC	0.01MF	30%	16V
C817	1-161-379-00	CERAMIC	0.01MF	30%	16V
C818	1-161-379-00	CERAMIC	0.01MF	30%	16V
C819	1-161-379-00	CERAMIC	0.01MF	30%	16V
C820	1-124-446-11	ELECT	47MF	20%	10V
C821	1-161-379-00	CERAMIC	0.01MF	30%	16V
C822	1-161-379-00	CERAMIC	0.01MF	30%	16V
C823	1-161-379-00	CERAMIC	0.01MF	30%	16V
C824	1-161-379-00	CERAMIC	0.01MF	30%	16V
C825	1-161-379-00	CERAMIC	0.01MF	30%	16V
C826	1-161-379-00	CERAMIC	0.01MF	30%	16V
C827	1-161-379-00	CERAMIC	0.01MF	30%	16V

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description			Remark
C828	1-161-379-00	CERAMIC	0.01MF	30%	16V
C829	1-161-379-00	CERAMIC	0.01MF	30%	16V
C848	1-124-446-11	ELECT	47MF	20%	10V
C849	1-161-379-00	CERAMIC	0.01MF	30%	16V
C850	1-124-446-11	ELECT	47MF	20%	10V
C851	1-161-379-00	CERAMIC	0.01MF	30%	16V

CONNECTOR

Ref.No	Part No.	Description	Remark
CN102	*1-560-891-00	PIN, CONNECTOR 3P	
CN103	*1-560-891-00	PIN, CONNECTOR 3P	
CN104	*1-564-001-11	PIN, CONNECTOR 2P	
CN105	*1-564-008-00	PIN, CONNECTOR 9P	
CN106	*1-564-010-11	PIN, CONNECTOR 11P	
CN601	*1-564-005-00	PIN, CONNECTOR 6P	
CN602	*1-564-005-00	PIN, CONNECTOR 6P	
CN603	*1-564-003-00	PIN, CONNECTOR 4P	
CN604	*1-564-002-00	PIN, CONNECTOR 3P	
CN605	*1-564-002-00	PIN, CONNECTOR 3P	
CN606	*1-564-003-00	PIN, CONNECTOR 4P	
CN608	*1-564-002-00	PIN, CONNECTOR 3P	
CN609	*1-564-008-00	PIN, CONNECTOR 9P	
CN610	*1-564-005-00	PIN, CONNECTOR 6P	
CN701	*1-564-004-00	PIN, CONNECTOR 5P	
CN801	*1-564-003-00	PIN, CONNECTOR 4P	
CN802	*1-564-002-00	PIN, CONNECTOR 3P	
CN803	*1-564-004-00	PIN, CONNECTOR 5P	

VARIABLE CAPACITOR

Ref.No	Part No.	Description	Remark
CV701	1-141-304-21	TRIMAR, CERAMIC 10PF	

DIODE

Ref.No	Part No.	Description	Remark
D101	8-719-911-19	DIODE 1SS119	
D102	8-719-911-19	DIODE 1SS119	
D103	8-719-911-19	DIODE 1SS119	
D104	8-719-911-19	DIODE 1SS119	
D105	8-719-911-19	DIODE 1SS119	
D106	8-719-911-19	DIODE 1SS119	
D612	8-719-911-19	DIODE 1SS119	
D701	8-719-911-19	DIODE 1SS119	
D801	8-719-911-19	DIODE 1SS119	
D802	8-719-911-19	DIODE 1SS119	
D803	8-719-911-19	DIODE 1SS119	
D804	8-719-911-19	DIODE 1SS119	
D805	8-719-911-19	DIODE 1SS119	
D806	8-719-911-19	DIODE 1SS119	

IC

Ref.No	Part No.	Description	Remark
IC101	8-759-103-19	IC UPC319C	
IC102	8-759-103-19	IC UPC319C	
IC103	8-759-618-48	IC M51848L	
IC104	8-759-314-41	IC HA11441	
IC105	8-759-901-23	IC SN74LS123N	
IC106	8-759-901-23	IC SN74LS123N	
IC107	8-759-240-40	IC TC4040BP	
IC108	8-759-202-16	IC TC74HC11P	
IC109	8-759-202-14	IC TC74HC08P	
IC110	8-759-202-11	IC TC74HC00P	
IC601	8-759-745-61	IC NJM4560D-D	
IC602	8-759-240-53	IC TC4053BP	
IC603	8-759-700-04	IC NJM2043D-D	
IC604	8-759-700-04	IC NJM2043D-D	
IC605	8-759-745-61	IC NJM4560D-D	
IC606	8-759-240-53	IC TC4053BP	
IC607	8-759-700-04	IC NJM2043D-D	
IC608	8-759-605-46	IC M51131L	
IC609	8-759-605-46	IC M51131L	
IC610	8-759-700-04	IC NJM2043D-D	
IC611	8-759-605-46	IC M51131L	
IC612	8-759-605-46	IC M51131L	
IC613	8-759-700-04	IC NJM2043D-D	
IC614	8-759-605-46	IC M51131L	
IC615	8-759-240-53	IC TC4053BP	
IC616	8-759-700-04	IC NJM2043D-D	
IC701	8-759-202-12	IC TC74HC02P	
IC702	8-759-203-05	IC TC74HC193P	
IC703	8-759-603-53	IC M51271SP	
IC704	8-759-990-82	IC TL082CP	
IC705	8-752-030-77	IC V7040	
IC706	8-759-271-58	IC TA7158P	
IC801	8-759-103-19	IC UPC319C	
IC802	8-759-103-19	IC UPC319C	
IC803	8-759-202-18	IC TC74HC20P	
IC804	8-759-140-66	IC UPD4066BC	
IC805	8-759-240-53	IC TC4053BP	
IC806	8-759-001-42	IC MC74HC174N	

COIL

Ref.No	Part No.	Description	Remark
L101	1-410-474-21	MICRO INDUCTOR 22UH	
L701	1-410-478-11	MICRO INDUCTOR 47UH	
L702	1-410-480-21	MICRO INDUCTOR 68UH	
L703	1-410-474-21	MICRO INDUCTOR 22UH	

TRANSISTOR

Ref.No	Part No.	Description	Remark
Q101	8-729-600-27	TRANSISTOR 2SC634SP	
Q102	8-729-600-27	TRANSISTOR 2SC634SP	
Q103	8-729-600-27	TRANSISTOR 2SC634SP	
Q104	8-729-204-83	TRANSISTOR 2SA1048GR	
Q105	8-729-600-27	TRANSISTOR 2SC634SP	
Q106	8-729-204-83	TRANSISTOR 2SA1048GR	
Q107	8-729-600-27	TRANSISTOR 2SC634SP	
Q108	8-729-600-27	TRANSISTOR 2SC634SP	
Q109	8-729-600-27	TRANSISTOR 2SC634SP	
Q110	8-729-204-83	TRANSISTOR 2SA1048GR	
Q111	8-729-204-83	TRANSISTOR 2SA1048GR	
Q112	8-729-600-27	TRANSISTOR 2SC634SP	
Q113	8-729-600-27	TRANSISTOR 2SC634SP	
Q114	8-729-600-27	TRANSISTOR 2SC634SP	
Q115	8-729-600-27	TRANSISTOR 2SC634SP	
Q116	8-729-600-27	TRANSISTOR 2SC634SP	
Q117	8-729-600-27	TRANSISTOR 2SC634SP	
Q118	8-729-600-27	TRANSISTOR 2SC634SP	
Q119	8-729-600-27	TRANSISTOR 2SC634SP	
Q120	8-729-600-27	TRANSISTOR 2SC634SP	
Q121	8-729-600-27	TRANSISTOR 2SC634SP	
Q122	8-729-600-27	TRANSISTOR 2SC634SP	
Q123	8-729-900-80	TRANSISTOR DTC114ES	
Q124	8-729-900-80	TRANSISTOR DTC114ES	
Q601	8-729-600-27	TRANSISTOR 2SC634SP	
Q602	8-729-204-83	TRANSISTOR 2SA1048GR	
Q603	8-729-204-83	TRANSISTOR 2SA1048GR	
Q701	8-729-600-27	TRANSISTOR 2SC634SP	
Q702	8-729-600-27	TRANSISTOR 2SC634SP	
Q703	8-729-600-27	TRANSISTOR 2SC634SP	
Q704	8-729-600-27	TRANSISTOR 2SC634SP	
Q705	8-729-204-83	TRANSISTOR 2SA1048GR	
Q706	8-729-204-83	TRANSISTOR 2SA1048GR	
Q707	8-729-600-27	TRANSISTOR 2SC634SP	
Q708	8-729-204-83	TRANSISTOR 2SA1048GR	
Q709	8-729-600-27	TRANSISTOR 2SC634SP	
Q710	8-729-600-27	TRANSISTOR 2SC634SP	
Q711	8-729-600-27	TRANSISTOR 2SC634SP	

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description	Remark
Q712	8-729-900-80	TRANSISTOR DTC114ES	
Q713	8-729-204-83	TRANSISTOR 2SA1048GR	
Q714	8-729-600-27	TRANSISTOR 2SC634SP	
Q715	8-729-204-83	TRANSISTOR 2SA1048GR	
Q716	8-729-600-27	TRANSISTOR 2SC634SP	
Q801	8-729-600-27	TRANSISTOR 2SC634SP	
Q802	8-729-204-83	TRANSISTOR 2SA1048GR	
Q803	8-729-600-27	TRANSISTOR 2SC634SP	
Q804	8-729-600-27	TRANSISTOR 2SC634SP	
Q805	8-729-204-83	TRANSISTOR 2SA1048GR	
Q806	8-729-600-27	TRANSISTOR 2SC634SP	
Q807	8-729-600-27	TRANSISTOR 2SC634SP	
Q808	8-729-204-83	TRANSISTOR 2SA1048GR	
Q809	8-729-600-27	TRANSISTOR 2SC634SP	
Q810	8-729-600-27	TRANSISTOR 2SC634SP	
Q811	8-729-204-83	TRANSISTOR 2SA1048GR	
Q812	8-729-600-27	TRANSISTOR 2SC634SP	

RESISTOR

Ref.No	Part No.	Description				Remark
R107	1-249-437-11	CARBON	47K	5%	1/4W	
R108	1-249-429-11	CARBON	10K	5%	1/4W	
R109	1-249-421-11	CARBON	2.2K	5%	1/4W	
R110	1-249-411-11	CARBON	330	5%	1/4W	
R111	1-249-421-11	CARBON	2.2K	5%	1/4W	
R112	1-249-413-11	CARBON	470	5%	1/4W	
R113	1-249-411-11	CARBON	330	5%	1/4W	
R114	1-249-421-11	CARBON	2.2K	5%	1/4W	
R115	1-249-419-11	CARBON	1.5K	5%	1/4W	
R116	1-215-493-00	CARBON	1M	5%	1/4W	
R117	1-249-428-11	CARBON	8.2K	5%	1/4W	
R118	1-249-421-11	CARBON	2.2K	5%	1/4W	
R119	1-249-429-11	CARBON	10K	5%	1/4W	
R120	1-249-435-11	CARBON	33K	5%	1/4W	
R121	1-249-423-11	CARBON	3.3K	5%	1/4W	
R122	1-249-421-11	CARBON	2.2K	5%	1/4W	
R123	1-249-421-11	CARBON	2.2K	5%	1/4W	
R124	1-249-440-11	CARBON	82K	5%	1/4W	
R125	1-249-440-11	CARBON	82K	5%	1/4W	
R126	1-249-429-11	CARBON	10K	5%	1/4W	
R127	1-249-424-11	CARBON	3.9K	5%	1/4W	
R128	1-249-417-11	CARBON	1K	5%	1/4W	
R129	1-249-432-11	CARBON	18K	5%	1/4W	
R130	1-249-432-11	CARBON	18K	5%	1/4W	
R131	1-249-424-11	CARBON	3.9K	5%	1/4W	
R132	1-249-424-11	CARBON	3.9K	5%	1/4W	
R133	1-249-431-11	CARBON	15K	5%	1/4W	
R134	1-249-430-11	CARBON	12K	5%	1/4W	
R135	1-249-417-11	CARBON	1K	5%	1/4W	
R136	1-249-417-11	CARBON	1K	5%	1/4W	
R137	1-249-429-11	CARBON	10K	5%	1/4W	
R138	1-249-417-11	CARBON	1K	5%	1/4W	
R140	1-249-430-11	CARBON	12K	5%	1/4W	
R141	1-249-419-11	CARBON	1.5K	5%	1/4W	
R142	1-249-417-11	CARBON	1K	5%	1/4W	
R143	1-249-417-11	CARBON	1K	5%	1/4W	
R144	1-249-431-11	CARBON	15K	5%	1/4W	
R145	1-249-397-11	CARBON	22	5%	1/4W	
R146	1-249-425-11	CARBON	4.7K	5%	1/4W	
R147	1-249-439-11	CARBON	68K	5%	1/4W	
R148	1-249-431-11	CARBON	15K	5%	1/4W	
R149	1-249-429-11	CARBON	10K	5%	1/4W	
R150	1-249-429-11	CARBON	10K	5%	1/4W	
R151	1-249-419-11	CARBON	1.5K	5%	1/4W	
R152	1-249-413-11	CARBON	470	5%	1/4W	
R153	1-249-429-11	CARBON	10K	5%	1/4W	
R154	1-249-417-11	CARBON	1K	5%	1/4W	
R155	1-247-849-00	CARBON	5.6K	5%	1/4W	
R156	1-249-427-11	CARBON	6.8K	5%	1/4W	
R157	1-249-427-11	CARBON	6.8K	5%	1/4W	
R158	1-249-429-11	CARBON	10K	5%	1/4W	
R159	1-249-425-11	CARBON	4.7K	5%	1/4W	
R160	1-249-413-11	CARBON	470	5%	1/4W	
R161	1-249-419-11	CARBON	1.5K	5%	1/4W	
R162	1-249-437-11	CARBON	47K	5%	1/4W	
R163	1-249-421-11	CARBON	2.2K	5%	1/4W	
R164	1-249-417-11	CARBON	1K	5%	1/4W	
R165	1-249-413-11	CARBON	470	5%	1/4W	
R166	1-249-417-11	CARBON	1K	5%	1/4W	
R167	1-249-413-11	CARBON	470	5%	1/4W	
R168	1-249-417-11	CARBON	1K	5%	1/4W	
R169	1-249-413-11	CARBON	470	5%	1/4W	
R170	1-249-417-11	CARBON	1K	5%	1/4W	
R171	1-249-413-11	CARBON	470	5%	1/4W	
R172	1-249-417-11	CARBON	1K	5%	1/4W	
R173	1-249-413-11	CARBON	470	5%	1/4W	
R174	1-249-417-11	CARBON	1K	5%	1/4W	
R175	1-249-421-11	CARBON	2.2K	5%	1/4W	
R176	1-249-417-11	CARBON	1K	5%	1/4W	
R177	1-249-421-11	CARBON	2.2K	5%	1/4W	
R179	1-247-883-00	CARBON	150K	5%	1/4W	
R180	1-249-413-11	CARBON	470	5%	1/4W	
R181	1-249-409-11	CARBON	220	5%	1/4W	
R184	1-249-421-11	CARBON	2.2K	5%	1/4W	
R185	1-249-409-11	CARBON	220	5%	1/4W	
R186	1-249-413-11	CARBON	470	5%	1/4W	
R187	1-249-421-11	CARBON	2.2K	5%	1/4W	
R188	1-249-429-11	CARBON	10K	5%	1/4W	
R189	1-249-418-11	CARBON	1.2K	5%	1/4W	
R191	1-249-418-11	CARBON	1.2K	5%	1/4W	
R192	1-249-409-11	CARBON	220	5%	1/4W	
R193	1-249-413-11	CARBON	470	5%	1/4W	
R194	1-249-417-11	CARBON	1K	5%	1/4W	
R195	1-249-421-11	CARBON	2.2K	5%	1/4W	
R601	1-249-417-11	CARBON	1K	5%	1/4W	
R602	1-249-441-11	CARBON	100K	5%	1/4W	
R603	1-249-441-11	CARBON	100K	5%	1/4W	
R604	1-249-417-11	CARBON	1K	5%	1/4W	
R605	1-249-417-11	CARBON	1K	5%	1/4W	
R606	1-249-441-11	CARBON	100K	5%	1/4W	
R607	1-249-417-11	CARBON	1K	5%	1/4W	
R608	1-249-441-11	CARBON	100K	5%	1/4W	
R609	1-249-417-11	CARBON	1K	5%	1/4W	
R610	1-249-441-11	CARBON	100K	5%	1/4W	
R611	1-249-441-11	CARBON	100K	5%	1/4W	
R612	1-249-417-11	CARBON	1K	5%	1/4W	
R613	1-249-429-11	CARBON	10K	5%	1/4W	
R614	1-249-429-11	CARBON	10K	5%	1/4W	
R615	1-249-429-11	CARBON	10K	5%	1/4W	
R616	1-249-429-11	CARBON	10K	5%	1/4W	
R617	1-249-429-11	CARBON	10K	5%	1/4W	
R618	1-249-429-11	CARBON	10K	5%	1/4W	
R619	1-249-429-11	CARBON	10K	5%	1/4W	
R620	1-249-402-11	CARBON	56	5%	1/4W	
R621	1-249-402-11	CARBON	56	5%	1/4W	
R622	1-249-429-11	CARBON	10K	5%	1/4W	
R623	1-249-427-11	CARBON	6.8K	5%	1/4W	
R624	1-249-431-11	CARBON	15K	5%	1/4W	
R625	1-249-433-11	CARBON	22K	5%	1/4W	
R626	1-249-409-11	CARBON	220	5%	1/4W	
R627	1-247-859-31	CARBON	15K	5%	1/4W	

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description			Remark
R629	1-249-417-11	CARBON	1K	5%	1/4W
R630	1-249-441-11	CARBON	100K	5%	1/4W
R631	1-249-402-11	CARBON	56	5%	1/4W
R632	1-249-402-11	CARBON	56	5%	1/4W
R633	1-249-439-11	CARBON	68K	5%	1/4W
R634	1-249-429-11	CARBON	10K	5%	1/4W
R635	1-249-441-11	CARBON	100K	5%	1/4W
R636	1-249-441-11	CARBON	100K	5%	1/4W
R637	1-249-441-11	CARBON	100K	5%	1/4W
R638	1-249-417-11	CARBON	1K	5%	1/4W
R639	1-249-417-11	CARBON	1K	5%	1/4W
R640	1-249-417-11	CARBON	1K	5%	1/4W
R641	1-249-417-11	CARBON	1K	5%	1/4W
R642	1-249-441-11	CARBON	100K	5%	1/4W
R643	1-249-441-11	CARBON	100K	5%	1/4W
R644	1-249-441-11	CARBON	100K	5%	1/4W
R645	1-249-441-11	CARBON	100K	5%	1/4W
R646	1-249-429-11	CARBON	10K	5%	1/4W
R647	1-249-433-11	CARBON	22K	5%	1/4W
R648	1-249-429-11	CARBON	10K	5%	1/4W
R650	1-249-417-11	CARBON	1K	5%	1/4W
R651	1-249-417-11	CARBON	1K	5%	1/4W
R701	1-249-427-11	CARBON	6.8K	5%	1/4W
R702	1-249-437-11	CARBON	47K	5%	1/4W
R703	1-249-421-11	CARBON	2.2K	5%	1/4W
R704	1-249-431-11	CARBON	15K	5%	1/4W
R705	1-249-431-11	CARBON	15K	5%	1/4W
R706	1-249-431-11	CARBON	15K	5%	1/4W
R707	1-249-433-11	CARBON	22K	5%	1/4W
R708	1-247-895-00	CARBON	470K	5%	1/4W
R709	1-249-436-11	CARBON	39K	5%	1/4W
R710	1-249-421-11	CARBON	2.2K	5%	1/4W
R711	1-249-413-11	CARBON	470	5%	1/4W
R712	1-249-435-11	CARBON	33K	5%	1/4W
R713	1-249-433-11	CARBON	22K	5%	1/4W
R714	1-249-417-11	CARBON	1K	5%	1/4W
R715	1-249-440-11	CARBON	82K	5%	1/4W
R716	1-249-411-11	CARBON	330	5%	1/4W
R717	1-249-433-11	CARBON	22K	5%	1/4W
R718	1-249-425-11	CARBON	4.7K	5%	1/4W
R719	1-249-419-11	CARBON	1.5K	5%	1/4W
R720	1-249-403-11	CARBON	68	5%	1/4W
R721	1-249-405-11	CARBON	100	5%	1/4W
R722	1-249-425-11	CARBON	4.7K	5%	1/4W
R723	1-249-413-11	CARBON	470	5%	1/4W
R724	1-249-413-11	CARBON	470	5%	1/4W
R725	1-249-435-11	CARBON	33K	5%	1/4W
R726	1-249-435-11	CARBON	33K	5%	1/4W
R727	1-249-413-11	CARBON	470	5%	1/4W
R728	1-249-413-11	CARBON	470	5%	1/4W
R729	1-249-413-11	CARBON	470	5%	1/4W
R730	1-249-417-11	CARBON	1K	5%	1/4W
R731	1-249-413-11	CARBON	470	5%	1/4W
R732	1-249-417-11	CARBON	1K	5%	1/4W
R733	1-249-411-11	CARBON	330	5%	1/4W
R734	1-249-419-11	CARBON	1.5K	5%	1/4W
R735	1-249-421-11	CARBON	2.2K	5%	1/4W
R736	1-249-413-11	CARBON	470	5%	1/4W
R737	1-249-417-11	CARBON	1K	5%	1/4W
R738	1-215-493-00	CARBON	1M	5%	1/4W
R739	1-249-429-11	CARBON	10K	5%	1/4W
R740	1-249-421-11	CARBON	2.2K	5%	1/4W
R741	1-249-430-11	CARBON	12K	5%	1/4W
R742	1-249-427-11	CARBON	6.8K	5%	1/4W
R743	1-249-413-11	CARBON	470	5%	1/4W
R744	1-249-429-11	CARBON	10K	5%	1/4W
R745	1-249-430-11	CARBON	12K	5%	1/4W
R746	1-249-409-11	CARBON	220	5%	1/4W
R747	1-249-413-11	CARBON	470	5%	1/4W
R748	1-249-420-11	CARBON	1.8K	5%	1/4W
R749	1-249-413-11	CARBON	470	5%	1/4W
R750	1-249-420-11	CARBON	1.8K	5%	1/4W
R751	1-249-413-11	CARBON	470	5%	1/4W
R752	1-249-420-11	CARBON	1.8K	5%	1/4W
R753	1-249-421-11	CARBON	2.2K	5%	1/4W
R754	1-249-413-11	CARBON	470	5%	1/4W
R755	1-249-413-11	CARBON	470	5%	1/4W
R756	1-249-413-11	CARBON	470	5%	1/4W
R757	1-249-429-11	CARBON	10K	5%	1/4W
R758	1-249-429-11	CARBON	10K	5%	1/4W
R759	1-249-417-11	CARBON	1K	5%	1/4W
R760	1-249-435-11	CARBON	33K	5%	1/4W
R761	1-249-435-11	CARBON	33K	5%	1/4W
R762	1-249-413-11	CARBON	470	5%	1/4W
R763	1-249-413-11	CARBON	470	5%	1/4W
R764	1-249-417-11	CARBON	1K	5%	1/4W
R765	1-249-415-11	CARBON	680	5%	1/4W
R766	1-249-414-11	CARBON	560	5%	1/4W
R767	1-215-428-00	METAL	2K	1%	1/6W
R768	1-215-428-00	METAL	2K	1%	1/6W
R769	1-249-405-11	CARBON	100	5%	1/4W
R771	1-249-417-11	CARBON	1K	5%	1/4W
R772	1-215-405-00	METAL	220	1%	1/6W
R773	1-215-405-00	METAL	220	1%	1/6W
R775	1-249-414-11	CARBON	560	5%	1/4W
R776	1-249-421-11	CARBON	2.2K	5%	1/4W
R777	1-249-409-11	CARBON	220	5%	1/4W
R778	1-249-430-11	CARBON	12K	5%	1/4W
R779	1-249-417-11	CARBON	1K	5%	1/4W
R780	1-249-413-11	CARBON	470	5%	1/4W
R781	1-249-417-11	CARBON	1K	5%	1/4W
R782	1-249-425-11	CARBON	4.7K	5%	1/4W
R787	1-249-429-11	CARBON	10K	5%	1/4W
R789	1-249-417-11	CARBON	1K	5%	1/4W
R801	1-249-437-11	CARBON	47K	5%	1/4W
R802	1-249-431-11	CARBON	15K	5%	1/4W
R803	1-249-431-11	CARBON	15K	5%	1/4W
R804	1-249-413-11	CARBON	470	5%	1/4W
R805	1-249-417-11	CARBON	1K	5%	1/4W
R806	1-249-413-11	CARBON	470	5%	1/4W
R807	1-249-435-11	CARBON	33K	5%	1/4W
R808	1-249-438-11	CARBON	56K	5%	1/4W
R809	1-249-425-11	CARBON	4.7K	5%	1/4W
R810	1-249-430-11	CARBON	12K	5%	1/4W
R811	1-249-433-11	CARBON	22K	5%	1/4W
R812	1-249-424-11	CARBON	3.9K	5%	1/4W
R813	1-249-425-11	CARBON	4.7K	5%	1/4W
R814	1-249-435-11	CARBON	33K	5%	1/4W
R815	1-249-439-11	CARBON	68K	5%	1/4W
R816	1-249-425-11	CARBON	4.7K	5%	1/4W
R817	1-249-437-11	CARBON	47K	5%	1/4W
R818	1-249-431-11	CARBON	15K	5%	1/4W
R819	1-247-883-00	CARBON	150K	5%	1/4W
R820	1-249-413-11	CARBON	470	5%	1/4W
R821	1-249-417-11	CARBON	1K	5%	1/4W
R822	1-249-413-11	CARBON	470	5%	1/4W
R823	1-249-435-11	CARBON	33K	5%	1/4W
R824	1-249-438-11	CARBON	56K	5%	1/4W
R825	1-249-425-11	CARBON	4.7K	5%	1/4W
R826	1-249-430-11	CARBON	12K	5%	1/4W

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description			Remark
R827	1-249-433-11	CARBON	22K	5%	1/4W
R828	1-249-424-11	CARBON	3.9K	5%	1/4W
R829	1-249-425-11	CARBON	4.7K	5%	1/4W
R830	1-249-435-11	CARBON	33K	5%	1/4W
R831	1-249-438-11	CARBON	56K	5%	1/4W
R832	1-249-425-11	CARBON	4.7K	5%	1/4W
R837	1-249-417-11	CARBON	1K	5%	1/4W
R838	1-249-421-11	CARBON	2.2K	5%	1/4W
R839	1-249-421-11	CARBON	2.2K	5%	1/4W
R841	1-249-413-11	CARBON	470	5%	1/4W
R843	1-249-425-11	CARBON	4.7K	5%	1/4W
R844	1-249-429-11	CARBON	10K	5%	1/4W
R845	1-249-425-11	CARBON	4.7K	5%	1/4W
R846	1-249-413-11	CARBON	470	5%	1/4W

VARIABLE RESISTOR

Ref.No	Part No.	Description
RV101	1-228-991-00	RES, ADJ, CARBON 2.2K
RV102	1-228-994-00	RES, ADJ, CARBON 10K
RV103	1-228-993-00	RES, ADJ, CARBON 4.7K
RV104	1-228-996-00	RES, ADJ, CARBON 47K
RV601	1-228-995-00	RES, ADJ, CARBON 22K
RV602	1-228-995-00	RES, ADJ, CARBON 22K
RV701	1-228-991-00	RES, ADJ, CARBON 2.2K
RV702	1-228-996-00	RES, ADJ, CARBON 47K
RV703	1-228-990-00	RES, ADJ, CARBON 1K
RV704	1-228-991-00	RES, ADJ, CARBON 2.2K
RV705	1-228-991-00	RES, ADJ, CARBON 2.2K
RV706	1-228-991-00	RES, ADJ, CARBON 2.2K
RV801	1-228-990-00	RES, ADJ, CARBON 1K
RV802	1-228-995-00	RES, ADJ, CARBON 22K
RV803	1-228-995-00	RES, ADJ, CARBON 22K
RV804	1-228-990-00	RES, ADJ, CARBON 1K
RV805	1-228-995-00	RES, ADJ, CARBON 22K
RV806	1-228-995-00	RES, ADJ, CARBON 22K

CRYSTAL

Ref.No	Part No.	Description
X701	1-527-724-21	VIBRATOR, CRYSTAL

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Ref.No	Part No.	Description
	*A-7060-999-A	CY-2 BOARD, COMPLETE **************
	*2-352-113-01	CASE, SHIELD
	*2-352-115-01	LID, SHIELD CASE
	*3-682-056-01	SPACER (LARGE)

CAPACITOR

Ref.No	Part No.	Description			Remark
C001	1-124-245-00	ELECT	4.7MF	20%	25V
C002	1-124-462-00	ELECT	10MF	20%	16V
C003	1-161-379-00	CERAMIC	0.01MF	30%	16V
C005	1-124-245-00	ELECT	4.7MF	20%	25V
C006	1-124-473-11	ELECT	1000MF	20%	10V
C007	1-124-462-00	ELECT	10MF	20%	16V
C008	1-161-379-00	CERAMIC	0.01MF	30%	16V
C009	1-124-462-00	ELECT	10MF	20%	16V
C010	1-124-473-11	ELECT	1000MF	20%	10V
C011	1-124-245-00	ELECT	4.7MF	20%	25V
C012	1-124-462-00	ELECT	10MF	20%	16V
C013	1-161-379-00	CERAMIC	0.01MF	30%	16V
C014	1-124-473-11	ELECT	1000MF	20%	10V
C015	1-124-245-00	ELECT	4.7MF	20%	25V
C016	1-124-462-00	ELECT	10MF	20%	16V
C017	1-124-464-11	ELECT	0.22MF	20%	50V
C018	1-124-464-11	ELECT	0.22MF	20%	50V
C019	1-162-851-00	CERAMIC	0.1MF	10%	16V
C020	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C021	1-161-379-00	CERAMIC	0.01MF	30%	16V
C022	1-162-851-00	CERAMIC	0.1MF	10%	16V
C023	1-131-348-00	TANTALUM	1.5MF	10%	20V
C024	1-102-816-00	CERAMIC	120PF	5%	50V
C025	1-101-880-00	CERAMIC	47PF	5%	50V
C026	1-161-379-00	CERAMIC	0.01MF	30%	16V
C027	1-161-379-00	CERAMIC	0.01MF	30%	16V
C028	1-161-379-00	CERAMIC	0.01MF	30%	16V
C029	1-124-462-00	ELECT	10MF	20%	16V
C030	1-124-446-11	ELECT	47MF	20%	10V
C031	1-161-379-00	CERAMIC	0.01MF	30%	16V
C032	1-162-851-00	CERAMIC	0.1MF	10%	16V
C033	1-101-880-00	CERAMIC	47PF	5%	50V
C034	1-101-880-00	CERAMIC	47PF	5%	50V
C035	1-101-880-00	CERAMIC	47PF	5%	50V
C036	1-124-446-11	ELECT	47MF	20%	10V
C037	1-124-462-00	ELECT	10MF	20%	16V
C038	1-124-462-00	ELECT	10MF	20%	16V
C039	1-102-973-00	CERAMIC	100PF	5%	50V
C040	1-102-973-00	CERAMIC	100PF	5%	50V
C041	1-124-444-00	ELECT	220MF	20%	10V
C042	1-124-477-11	ELECT	47MF	20%	16V
C043	1-161-379-00	CERAMIC	0.01MF	30%	16V
C044	1-124-245-00	ELECT	4.7MF	20%	25V
C045	1-124-462-00	ELECT	10MF	20%	16V
C046	1-161-379-00	CERAMIC	0.01MF	30%	16V
C047	1-124-462-00	ELECT	10MF	20%	16V
C048	1-161-379-00	CERAMIC	0.01MF	30%	16V
C049	1-124-462-00	ELECT	10MF	20%	16V
C050	1-161-379-00	CERAMIC	0.01MF	30%	16V
C201	1-131-345-00	TANTALUM	0.47MF	10%	35V
C202	1-131-342-00	TANTALUM	0.15MF	10%	35V
C203	1-161-379-00	CERAMIC	0.01MF	30%	16V
C204	1-124-446-11	ELECT	47MF	20%	10V
C205	1-124-462-00	ELECT	10MF	20%	16V
C206	1-124-477-11	ELECT	47MF	20%	25V
C207	1-131-342-00	TANTALUM	0.15MF	10%	35V
C208	1-124-446-11	ELECT	47MF	20%	10V
C209	1-161-379-00	CERAMIC	0.01MF	30%	16V
C211	1-161-379-00	CERAMIC	0.01MF	30%	16V
C212	1-124-462-00	ELECT	10MF	20%	16V
C213	1-124-462-00	ELECT	10MF	20%	16V
C214	1-126-101-11	ELECT	100MF	20%	16V
C215	1-161-379-00	CERAMIC	0.01MF	30%	16V
C216	1-124-443-00	ELECT	100MF	20%	10V
C217	1-161-379-00	CERAMIC	0.01MF	30%	16V
C218	1-124-465-00	ELECT	0.47MF	20%	50V
C219	1-123-611-00	ELECT	1MF	20%	50V
C220	1-124-446-11	ELECT	47MF	20%	10V
C221	1-124-446-11	ELECT	47MF	20%	10V
C222	1-161-379-00	CERAMIC	0.01MF	30%	16V
C223	1-161-379-00	CERAMIC	0.01MF	30%	16V
C224	1-124-446-11	ELECT	47MF	20%	10V
C225	1-124-465-00	ELECT	0.47MF	20%	50V
C226	1-123-611-00	ELECT	1MF	20%	50V
C227	1-124-446-11	ELECT	47MF	20%	10V
C228	1-102-959-00	CERAMIC	22PF	5%	50V
C229	1-124-465-00	ELECT	0.47MF	20%	50V
C230	1-161-379-00	CERAMIC	0.01MF	30%	16V
C231	1-124-477-11	ELECT	47MF	20%	16V
C232	1-124-446-11	ELECT	47MF	20%	10V
C233	1-124-446-11	ELECT	47MF	20%	10V

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description			Remark
C234	1-124-446-11	ELECT	47MF	20%	10V
C235	1-124-446-11	ELECT	47MF	20%	10V
C236	1-124-446-11	ELECT	47MF	20%	10V
C237	1-131-345-00	TANTALUM	0.47MF	10%	35V
C238	1-124-462-00	ELECT	10MF	20%	16V
C239	1-131-342-00	TANTALUM	0.15MF	10%	35V
C240	1-124-462-00	ELECT	10MF	20%	16V
C241	1-161-379-00	CERAMIC	0.01MF	30%	16V
C242	1-161-379-00	CERAMIC	0.01MF	30%	16V
C243	1-124-446-11	ELECT	47MF	20%	10V
C244	1-131-342-00	TANTALUM	0.15MF	10%	35V
C245	1-124-446-11	ELECT	47MF	20%	10V
C246	1-161-379-00	CERAMIC	0.01MF	30%	16V
C247	1-124-120-11	ELECT	220MF	20%	16V
C248	1-126-101-11	ELECT	100MF	20%	16V
C249	1-161-379-00	CERAMIC	0.01MF	30%	16V
C250	1-124-446-11	ELECT	47MF	20%	10V
C251	1-161-379-00	CERAMIC	0.01MF	30%	16V
C252	1-161-379-00	CERAMIC	0.01MF	30%	16V
C253	1-124-446-11	ELECT	47MF	20%	10V
C254	1-124-446-11	ELECT	47MF	20%	10V
C255	1-124-446-11	ELECT	47MF	20%	10V
C256	1-102-816-00	CERAMIC	120PF	5%	50V
C257	1-124-446-11	ELECT	47MF	20%	10V
C258	1-102-965-00	CERAMIC	39PF	5%	50V
C259	1-124-477-11	ELECT	47MF	20%	16V
C260	1-161-379-00	CERAMIC	0.01MF	30%	16V
C261	1-162-851-00	CERAMIC	0.1MF	10%	16V
C262	1-124-446-11	ELECT	47MF	20%	10V
C263	1-161-379-00	CERAMIC	0.01MF	30%	16V
C264	1-162-851-00	CERAMIC	0.1MF	10%	16V
C265	1-162-851-00	CERAMIC	0.1MF	10%	16V
C266	1-162-851-00	CERAMIC	0.1MF	10%	16V
C267	1-126-101-11	ELECT	100MF	20%	16V
C268	1-124-477-11	ELECT	47MF	20%	16V
C269	1-124-477-11	ELECT	47MF	20%	16V
C270	1-162-851-00	CERAMIC	0.1MF	10%	16V
C271	1-124-444-00	ELECT	220MF	20%	10V
C272	1-124-443-00	ELECT	100MF	20%	10V
C273	1-124-446-11	ELECT	47MF	20%	10V
C274	1-124-477-11	ELECT	47MF	20%	16V
C275	1-161-379-00	CERAMIC	0.01MF	30%	16V
C276	1-124-446-11	ELECT	47MF	20%	10V
C277	1-161-379-00	CERAMIC	0.01MF	30%	16V
C278	1-124-462-00	ELECT	10MF	20%	16V
C279	1-102-959-00	CERAMIC	22PF	5%	50V
C280	1-124-477-11	ELECT	47MF	20%	25V
C281	1-124-120-11	ELECT	220MF	20%	16V
C282	1-123-611-00	ELECT	1MF	20%	50V
C283	1-124-462-00	ELECT	10MF	20%	16V
C401	1-162-851-00	CERAMIC	0.1MF	10%	16V
C402	1-123-611-00	ELECT	1MF	20%	50V
C403	1-123-611-00	ELECT	1MF	20%	50V
C404	1-161-379-00	CERAMIC	0.01MF	30%	16V
C405	1-102-959-00	CERAMIC	22PF	5%	50V
C406	1-123-611-00	ELECT	1MF	20%	50V
C407	1-123-611-00	ELECT	1MF	20%	50V
C408	1-161-379-00	CERAMIC	0.01MF	30%	16V
C409	1-162-851-00	CERAMIC	0.1MF	10%	16V
C410	1-162-851-00	CERAMIC	0.1MF	10%	16V
C411	1-124-462-00	ELECT	10MF	20%	16V
C412	1-124-462-00	ELECT	10MF	20%	16V
C413	1-124-465-00	ELECT	0.47MF	20%	50V
C414	1-123-611-00	ELECT	1MF	20%	50V
C415	1-126-101-11	ELECT	100MF	20%	16V
C416	1-124-446-11	ELECT	47MF	20%	10V
C417	1-124-443-00	ELECT	100MF	20%	10V
C418	1-124-443-00	ELECT	100MF	20%	10V
C419	1-124-462-00	ELECT	10MF	20%	16V
C420	1-124-462-00	ELECT	10MF	20%	16V
C421	1-123-611-00	ELECT	1MF	20%	50V
C422	1-123-611-00	ELECT	1MF	20%	50V
C423	1-161-379-00	CERAMIC	0.01MF	30%	16V
C424	1-161-379-00	CERAMIC	0.01MF	30%	16V
C425	1-161-379-00	CERAMIC	0.01MF	30%	16V
C426	1-102-961-00	CERAMIC	27PF	5%	50V
C427	1-161-379-00	CERAMIC	0.01MF	30%	16V
C428	1-101-880-00	CERAMIC	47PF	5%	50V
C430	1-124-465-00	ELECT	0.47MF	20%	50V
C431	1-123-611-00	ELECT	1MF	20%	50V
C432	1-102-959-00	CERAMIC	22PF	5%	50V
C433	1-161-379-00	CERAMIC	0.01MF	30%	16V
C434	1-162-851-00	CERAMIC	0.1MF	10%	16V
C435	1-102-959-00	CERAMIC	22PF	5%	50V
C436	1-124-446-11	ELECT	47MF	20%	10V
C437	1-124-446-11	ELECT	47MF	20%	10V
C438	1-161-379-00	CERAMIC	0.01MF	30%	16V
C439	1-124-446-11	ELECT	47MF	20%	10V
C440	1-161-379-00	CERAMIC	0.01MF	30%	16V
C441	1-124-446-11	ELECT	47MF	20%	10V
C442	1-161-379-00	CERAMIC	0.01MF	30%	16V
C443	1-124-477-11	ELECT	47MF	20%	16V
C444	1-161-379-00	CERAMIC	0.01MF	30%	16V
C445	1-161-379-00	CERAMIC	0.01MF	30%	16V
C446	1-124-446-11	ELECT	47MF	20%	10V
C447	1-161-379-00	CERAMIC	0.01MF	30%	16V
C448	1-124-446-11	ELECT	47MF	20%	10V
C449	1-161-379-00	CERAMIC	0.01MF	30%	16V
C450	1-124-446-11	ELECT	47MF	20%	10V
C451	1-124-446-11	ELECT	47MF	20%	10V
C452	1-161-379-00	CERAMIC	0.01MF	30%	16V
C453	1-124-446-11	ELECT	47MF	20%	10V
C454	1-161-379-00	CERAMIC	0.01MF	30%	16V
C455	1-161-379-00	CERAMIC	0.01MF	30%	16V
C456	1-124-446-11	ELECT	47MF	20%	10V
C457	1-124-446-11	ELECT	47MF	20%	10V
C458	1-124-462-00	ELECT	10MF	20%	16V
C459	1-124-443-00	ELECT	100MF	20%	10V
C460	1-102-973-00	CERAMIC	100PF	5%	50V
C461	1-102-973-00	CERAMIC	100PF	5%	50V
C462	1-124-462-00	ELECT	10MF	20%	16V
C463	1-162-851-00	CERAMIC	0.1MF	10%	16V
C464	1-162-851-00	CERAMIC	0.1MF	10%	16V
C465	1-102-514-00	CERAMIC	22MF	5%	50V
C466	1-102-944-00	CERAMIC	7PF		
C680	1-124-462-00	ELECT	10MF	20%	16V
C681	1-124-462-00	ELECT	10MF	20%	16V
C682	1-124-462-00	ELECT	10MF	20%	16V
C683	1-124-462-00	ELECT	10MF	20%	16V
C851	1-102-824-00	CERAMIC	470PF	5%	50V
C852	1-161-379-00	CERAMIC	0.01MF	30%	16V
C853	1-124-462-00	ELECT	10MF	20%	16V
C854	1-124-462-00	ELECT	10MF	20%	16V
C855	1-161-379-00	CERAMIC	0.01MF	30%	16V
C856	1-161-379-00	CERAMIC	0.01MF	30%	16V
C900	1-131-343-00	TANTALUM	0.22MF	10%	35V
C901	1-124-462-00	ELECT	10MF	20%	16V
C902	1-124-462-00	ELECT	10MF	20%	16V
C903	1-124-443-00	ELECT	100MF	20%	10V
C904	1-124-462-00	ELECT	10MF	20%	16V

When indicating parts by reference number, please include the board name.

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Ref.No	Part No.	Description			Remark
C905	1-124-462-00	ELECT	10MF	20%	16V
C906	1-161-379-00	CERAMIC	0.01MF	30%	16V
C907	1-124-443-00	ELECT	100MF	20%	10V
C908	1-161-379-00	CERAMIC	0.01MF	30%	16V
C909	1-124-443-00	ELECT	100MF	20%	10V
C911	1-124-443-00	ELECT	100MF	20%	10V
C912	1-124-443-00	ELECT	100MF	20%	10V
C913	1-124-465-00	ELECT	0.47MF	20%	50V
C917	1-102-961-00	CERAMIC	27PF	5%	50V
C918	1-102-961-00	CERAMIC	27PF	5%	50V
C919	1-124-465-00	ELECT	0.47MF	20%	50V
C920	1-124-462-00	ELECT	10MF	20%	16V
C922	1-124-462-00	ELECT	10MF	20%	16V
C923	1-124-462-00	ELECT	10MF	20%	16V
C924	1-161-379-00	CERAMIC	0.01MF	30%	16V
C925	1-161-379-00	CERAMIC	0.01MF	30%	16V
C926	1-161-379-00	CERAMIC	0.01MF	30%	16V
C927	1-124-465-00	ELECT	0.47MF	20%	50V
C928	1-102-961-00	CERAMIC	27PF	5%	50V
C929	1-124-462-00	ELECT	10MF	20%	16V
C930	1-102-961-00	CERAMIC	27PF	5%	50V
C931	1-161-379-00	CERAMIC	0.01MF	30%	16V
C932	1-161-379-00	CERAMIC	0.01MF	30%	16V
C933	1-161-379-00	CERAMIC	0.01MF	30%	16V
C934	1-124-446-11	ELECT	47MF	20%	10V
C936	1-124-444-00	ELECT	220MF	20%	10V
C937	1-124-462-00	ELECT	10MF	20%	16V
C938	1-124-462-00	ELECT	10MF	20%	16V
C939	1-124-473-11	ELECT	1000MF	20%	10V
C940	1-124-245-00	ELECT	4.7MF	20%	25V
C941	1-124-446-11	ELECT	47MF	20%	10V
C942	1-161-379-00	CERAMIC	0.01MF	30%	16V
C943	1-124-473-11	ELECT	1000MF	20%	10V
C944	1-124-245-00	ELECT	4.7MF	20%	25V
C945	1-124-120-11	ELECT	220MF	20%	16V
C946	1-124-465-00	ELECT	0.47MF	20%	50V
C947	1-161-379-00	CERAMIC	0.01MF	30%	16V
C948	1-124-446-11	ELECT	47MF	20%	10V
C949	1-161-379-00	CERAMIC	0.01MF	30%	16V
C950	1-124-446-11	ELECT	47MF	20%	10V
C951	1-161-379-00	CERAMIC	0.01MF	30%	16V
C952	1-124-477-11	ELECT	47MF	20%	16V
C955	1-124-462-00	ELECT	10MF	20%	16V

CONNECTOR

CN001	*1-564-002-00	PIN, CONNECTOR 3P
CN101	*1-560-892-00	PIN, CONNECTOR 4P
CN201	*1-564-002-00	PIN, CONNECTOR 3P
CN401	*1-564-002-00	PIN, CONNECTOR 3P
CN402	*1-564-005-00	PIN, CONNECTOR 6P
CN403	*1-564-003-00	PIN, CONNECTOR 4P
CN901	*1-564-001-11	PIN, CONNECTOR 2P
CN902	*1-564-001-11	PIN, CONNECTOR 2P
CN903	*1-564-004-00	PIN, CONNECTOR 5P
CN905	1-506-982-11	PIN, CONNECTOR 14P

CONNECTOR

CNJ001	*1-563-524-21	JACK, PIN 6P
CNJ002	*1-563-524-21	JACK, PIN 6P
CNJ003	1-563-523-21	JACK, PIN 2P
CNJ004	1-507-845-41	JACK, PIN 2P
CNJ005	*1-563-524-21	JACK, PIN 6P

VARIABLE CAPACITOR

CV001	1-141-304-21	TRIMAR, CERAMIC 10P
CV002	1-141-304-21	TRIMAR, CERAMIC 10P

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description	Remark

DIODE

D001	8-719-108-12	DIODE RD9.1EW	
D002	8-719-108-12	DIODE RD9.1EW	
D003	8-719-911-19	DIODE 1SS119	
D004	8-719-911-19	DIODE 1SS119	
D005	8-719-920-97	DIODE 1T25-3	
D006	8-719-911-19	DIODE 1SS119	
D007	8-719-108-12	DIODE RD9.1EW	
D008	8-719-911-19	DIODE 1SS119	
D009	8-719-109-86	DIODE RD5.1ESB3	
D010	8-719-911-19	DIODE 1SS119	
D011	8-719-911-19	DIODE 1SS119	
D201	8-719-911-19	DIODE 1SS119	
D202	8-719-911-19	DIODE 1SS119	
D203	8-719-911-19	DIODE 1SS119	
D204	8-719-911-19	DIODE 1SS119	
D205	8-719-911-19	DIODE 1SS119	
D206	8-719-911-19	DIODE 1SS119	
D207	8-719-911-19	DIODE 1SS119	
D208	8-719-911-19	DIODE 1SS119	
D209	8-719-911-19	DIODE 1SS119	
D210	8-719-911-19	DIODE 1SS119	
D211	8-719-911-19	DIODE 1SS119	
D601	8-719-108-12	DIODE RD9.1EW	
D602	8-719-108-12	DIODE RD9.1EW	
D603	8-719-108-12	DIODE RD9.1EW	
D604	8-719-108-12	DIODE RD9.1EW	
D605	8-719-108-12	DIODE RD9.1EW	
D606	8-719-108-12	DIODE RD9.1EW	
D607	8-719-108-12	DIODE RD9.1EW	
D608	8-719-108-12	DIODE RD9.1EW	
D609	8-719-108-12	DIODE RD9.1EW	
D610	8-719-108-12	DIODE RD9.1EW	
D851	8-719-911-19	DIODE 1SS119	
D852	8-719-911-19	DIODE 1SS119	
D853	8-719-911-19	DIODE 1SS119	
D854	8-719-911-19	DIODE 1SS119	
D855	8-719-911-19	DIODE 1SS119	
D856	8-719-911-19	DIODE 1SS119	
D857	8-719-911-19	DIODE 1SS119	
D901	8-719-108-12	DIODE RD9.1EW	
D902	8-719-911-19	DIODE 1SS119	
D932	8-719-911-19	DIODE 1SS119	

FILTER

FL901	1-409-380-11	COIL, TRAP	

IC

IC002	8-759-302-99	IC CX20186	
IC004	8-759-302-99	IC CX20186	
IC006	8-759-302-99	IC CX20186	
IC008	8-757-930-11	IC CX-7930A	
IC009	8-752-006-10	IC CX20061	
IC010	8-759-140-66	IC UPD4066BC	
IC201	8-758-100-00	IC CX-810	
IC202	8-759-240-53	IC TC4053BP	
IC203	8-758-100-00	IC CX-810	
IC401	8-759-240-53	IC TC4053BP	
IC402	8-759-271-58	IC TA7158P	
IC403	8-759-271-58	IC TA7158P	
IC404	8-759-603-55	IC M51272P	
IC405	8-759-271-58	IC TA7158P	
IC851	8-759-132-40	IC UPC324C	

Ref.No	Part No.	Description	Remark
IC900	8-759-271-58	IC TA7158P	
IC902	8-752-006-10	IC CX20061	
IC904	8-759-001-42	IC MC74HC174N	
IC905	8-759-240-53	IC TC4053BP	
IC906	8-759-302-99	IC CX20186	

COIL

Ref.No	Part No.	Description	Remark
L001	1-410-476-11	MICRO INDUCTOR 33UH	
L002	1-408-411-00	MICRO INDUCTOR 15UH	
L201	1-410-471-11	MICRO INDUCTOR 12UH	
L402	1-410-478-11	MICRO INDUCTOR 47UH	
L901	1-410-478-11	MICRO INDUCTOR 47UH	
L902	1-410-478-11	MICRO INDUCTOR 47UH	
L903	1-410-478-11	MICRO INDUCTOR 47UH	
L904	1-410-478-11	MICRO INDUCTOR 47UH	

TRANSISTOR

Ref.No	Part No.	Description	Remark
Q001	8-729-600-27	TRANSISTOR 2SC634SP	
Q002	8-729-600-27	TRANSISTOR 2SC634SP	
Q003	8-729-600-27	TRANSISTOR 2SC634SP	
Q004	8-729-600-27	TRANSISTOR 2SC634SP	
Q005	8-729-600-27	TRANSISTOR 2SC634SP	
Q006	8-729-600-27	TRANSISTOR 2SC634SP	
Q007	8-729-900-61	TRANSISTOR DTA114ES	
Q008	8-729-600-27	TRANSISTOR 2SC634SP	
Q009	8-729-600-27	TRANSISTOR 2SC634SP	
Q010	8-729-600-27	TRANSISTOR 2SC634SP	
Q011	8-729-600-27	TRANSISTOR 2SC634SP	
Q012	8-729-600-27	TRANSISTOR 2SC634SP	
Q013	8-729-204-83	TRANSISTOR 2SA1048GR	
Q014	8-729-600-27	TRANSISTOR 2SC634SP	
Q015	8-729-900-89	TRANSISTOR DTC144ES	
Q016	8-729-600-27	TRANSISTOR 2SC634SP	
Q017	8-729-600-27	TRANSISTOR 2SC634SP	
Q018	8-729-600-27	TRANSISTOR 2SC634SP	
Q201	8-729-204-83	TRANSISTOR 2SA1048GR	
Q205	8-729-204-83	TRANSISTOR 2SA1048GR	
Q206	8-729-600-27	TRANSISTOR 2SC634SP	
Q208	8-729-600-27	TRANSISTOR 2SC634SP	
Q210	8-729-600-27	TRANSISTOR 2SC634SP	
Q211	8-729-600-27	TRANSISTOR 2SC634SP	
Q212	8-729-900-80	TRANSISTOR DTC114ES	
Q213	8-729-900-80	TRANSISTOR DTC114ES	
Q214	8-729-600-27	TRANSISTOR 2SC634SP	
Q215	8-729-600-27	TRANSISTOR 2SC634SP	
Q216	8-729-600-27	TRANSISTOR 2SC634SP	
Q217	8-729-900-80	TRANSISTOR DTC114ES	
Q218	8-729-204-83	TRANSISTOR 2SA1048GR	
Q219	8-729-600-27	TRANSISTOR 2SC634SP	
Q220	8-729-600-27	TRANSISTOR 2SC634SP	
Q221	8-729-600-27	TRANSISTOR 2SC634SP	
Q222	8-729-204-83	TRANSISTOR 2SA1048GR	
Q223	8-729-600-27	TRANSISTOR 2SC634SP	
Q224	8-729-204-83	TRANSISTOR 2SA1048GR	
Q225	8-729-600-27	TRANSISTOR 2SC634SP	
Q226	8-729-600-27	TRANSISTOR 2SC634SP	
Q227	8-729-204-83	TRANSISTOR 2SA1048GR	
Q228	8-729-600-27	TRANSISTOR 2SC634SP	
Q229	8-729-600-27	TRANSISTOR 2SC634SP	
Q230	8-729-600-27	TRANSISTOR 2SC634SP	
Q231	8-729-600-27	TRANSISTOR 2SC634SP	
Q232	8-729-600-27	TRANSISTOR 2SC634SP	
Q233	8-729-600-27	TRANSISTOR 2SC634SP	
Q234	8-729-600-27	TRANSISTOR 2SC634SP	
Q235	8-729-600-27	TRANSISTOR 2SC634SP	
Q236	8-729-204-83	TRANSISTOR 2SA1048GR	
Q237	8-729-204-83	TRANSISTOR 2SA1048GR	
Q238	8-729-625-91	TRANSISTOR 2SC2259	
Q239	8-729-697-92	TRANSISTOR 2SA979	
Q240	8-729-600-27	TRANSISTOR 2SC634SP	
Q241	8-729-600-27	TRANSISTOR 2SC634SP	
Q242	8-729-600-27	TRANSISTOR 2SC634SP	
Q243	8-729-600-27	TRANSISTOR 2SC634SP	
Q244	8-729-600-27	TRANSISTOR 2SC634SP	
Q401	8-729-600-27	TRANSISTOR 2SC634SP	
Q402	8-729-600-27	TRANSISTOR 2SC634SP	
Q403	8-729-600-27	TRANSISTOR 2SC634SP	
Q404	8-729-600-27	TRANSISTOR 2SC634SP	
Q405	8-729-204-83	TRANSISTOR 2SA1048GR	
Q406	8-729-600-27	TRANSISTOR 2SC634SP	
Q407	8-729-600-27	TRANSISTOR 2SC634SP	
Q408	8-729-600-27	TRANSISTOR 2SC634SP	
Q409	8-729-600-27	TRANSISTOR 2SC634SP	
Q410	8-729-600-27	TRANSISTOR 2SC634SP	
Q411	8-729-600-27	TRANSISTOR 2SC634SP	
Q412	8-729-204-83	TRANSISTOR 2SA1048GR	
Q413	8-729-600-27	TRANSISTOR 2SC634SP	
Q414	8-729-900-80	TRANSISTOR DTC114ES	
Q415	8-729-600-27	TRANSISTOR 2SC634SP	
Q416	8-729-900-80	TRANSISTOR DTC114ES	
Q417	8-729-900-80	TRANSISTOR DTC114ES	
Q418	8-729-600-27	TRANSISTOR 2SC634SP	
Q419	8-729-600-27	TRANSISTOR 2SC634SP	
Q420	8-729-600-27	TRANSISTOR 2SC634SP	
Q421	8-729-900-89	TRANSISTOR DTC144ES	
Q422	8-729-600-27	TRANSISTOR 2SC634SP	
Q423	8-729-204-83	TRANSISTOR 2SA1048GR	
Q424	8-729-600-27	TRANSISTOR 2SC634SP	
Q425	8-729-600-27	TRANSISTOR 2SC634SP	
Q426	8-729-204-83	TRANSISTOR 2SA1048GR	
Q427	8-729-900-80	TRANSISTOR DTC114ES	
Q428	8-729-600-27	TRANSISTOR 2SC634SP	
Q429	8-729-600-27	TRANSISTOR 2SC634SP	
Q430	8-729-204-83	TRANSISTOR 2SA1048GR	
Q431	8-729-204-83	TRANSISTOR 2SA1048GR	
Q432	8-729-600-27	TRANSISTOR 2SC634SP	
Q433	8-729-600-27	TRANSISTOR 2SC634SP	
Q434	8-729-600-27	TRANSISTOR 2SC634SP	
Q435	8-729-204-83	TRANSISTOR 2SA1048GR	
Q436	8-729-600-27	TRANSISTOR 2SC634SP	
Q437	8-729-204-83	TRANSISTOR 2SA1048GR	
Q439	8-729-900-80	TRANSISTOR DTC114ES	
Q900	8-729-600-27	TRANSISTOR 2SC634SP	
Q901	8-729-600-27	TRANSISTOR 2SC634SP	
Q902	8-729-600-27	TRANSISTOR 2SC634SP	
Q903	8-729-900-80	TRANSISTOR DTC114ES	
Q904	8-729-600-27	TRANSISTOR 2SC634SP	
Q905	8-729-600-27	TRANSISTOR 2SC634SP	
Q906	8-729-600-27	TRANSISTOR 2SC634SP	
Q907	8-729-600-27	TRANSISTOR 2SC634SP	
Q908	8-729-600-27	TRANSISTOR 2SC634SP	
Q909	8-729-600-27	TRANSISTOR 2SC634SP	
Q910	8-729-600-27	TRANSISTOR 2SC634SP	
Q911	8-729-600-27	TRANSISTOR 2SC634SP	
Q912	8-729-600-27	TRANSISTOR 2SC634SP	
Q913	8-729-600-27	TRANSISTOR 2SC634SP	
Q914	8-729-600-27	TRANSISTOR 2SC634SP	
Q915	8-729-204-83	TRANSISTOR 2SA1048GR	
Q916	8-729-600-27	TRANSISTOR 2SC634SP	
Q917	8-729-204-83	TRANSISTOR 2SA1048GR	

When indicating parts by reference number, please include the board name.

CY-2

RESISTOR

Ref.No	Part No.	Description				Remark
R001	1-215-394-00	CARBON	75	5%	1/4W	
R002	1-249-421-11	CARBON	2.2K	5%	1/4W	
R003	1-215-394-00	CARBON	75	5%	1/4W	
R004	1-249-423-11	CARBON	3.3K	5%	1/4W	
R005	1-249-423-11	CARBON	3.3K	5%	1/4W	
R006	1-249-421-11	CARBON	2.2K	5%	1/4W	
R007	1-249-423-11	CARBON	3.3K	5%	1/4W	
R008	1-249-423-11	CARBON	3.3K	5%	1/4W	
R009	1-215-394-00	CARBON	75	5%	1/4W	
R010	1-215-394-00	CARBON	75	5%	1/4W	
R011	1-249-421-11	CARBON	2.2K	5%	1/4W	
R012	1-215-394-00	CARBON	75	5%	1/4W	
R013	1-249-423-11	CARBON	3.3K	5%	1/4W	
R014	1-249-423-11	CARBON	3.3K	5%	1/4W	
R015	1-249-438-11	CARBON	56K	5%	1/4W	
R016	1-249-430-11	CARBON	12K	5%	1/4W	
R017	1-247-849-00	CARBON	5.6K	5%	1/4W	
R018	1-249-417-11	CARBON	1K	5%	1/4W	
R019	1-249-417-11	CARBON	1K	5%	1/4W	
R020	1-249-433-11	CARBON	22K	5%	1/4W	
R021	1-215-493-00	CARBON	1M	5%	1/4W	
R022	1-249-437-11	CARBON	47K	5%	1/4W	
R023	1-249-423-11	CARBON	3.3K	5%	1/4W	
R024	1-215-493-00	CARBON	1M	5%	1/4W	
R025	1-247-895-00	CARBON	470K	5%	1/4W	
R026	1-249-429-11	CARBON	10K	5%	1/4W	
R027	1-249-429-11	CARBON	10K	5%	1/4W	
R028	1-249-429-11	CARBON	10K	5%	1/4W	
R029	1-249-429-11	CARBON	10K	5%	1/4W	
R030	1-249-425-11	CARBON	4.7K	5%	1/4W	
R031	1-247-887-00	CARBON	220K	5%	1/4W	
R032	1-249-414-11	CARBON	560	5%	1/4W	
R033	1-249-431-11	CARBON	15K	5%	1/4W	
R034	1-249-425-11	CARBON	4.7K	5%	1/4W	
R035	1-249-433-11	CARBON	22K	5%	1/4W	
R036	1-249-437-11	CARBON	47K	5%	1/4W	
R037	1-249-423-11	CARBON	3.3K	5%	1/4W	
R038	1-249-428-11	CARBON	8.2K	5%	1/4W	
R039	1-249-436-11	CARBON	39K	5%	1/4W	
R040	1-249-415-11	CARBON	680	5%	1/4W	
R041	1-249-417-11	CARBON	1K	5%	1/4W	
R042	1-249-417-11	CARBON	1K	5%	1/4W	
R043	1-215-493-00	CARBON	1M	5%	1/4W	
R044	1-249-413-11	CARBON	470	5%	1/4W	
R045	1-249-429-11	CARBON	10K	5%	1/4W	
R046	1-249-421-11	CARBON	2.2K	5%	1/4W	
R047	1-249-421-11	CARBON	2.2K	5%	1/4W	
R048	1-249-423-11	CARBON	3.3K	5%	1/4W	
R049	1-249-425-11	CARBON	4.7K	5%	1/4W	
R050	1-249-413-11	CARBON	470	5%	1/4W	
R051	1-249-413-11	CARBON	470	5%	1/4W	
R052	1-249-406-11	CARBON	120	5%	1/4W	
R053	1-249-421-11	CARBON	2.2K	5%	1/4W	
R054	1-249-411-11	CARBON	330	5%	1/4W	
R055	1-249-413-11	CARBON	470	5%	1/4W	
R056	1-249-421-11	CARBON	2.2K	5%	1/4W	
R057	1-249-421-11	CARBON	2.2K	5%	1/4W	
R058	1-249-408-11	CARBON	180	5%	1/4W	
R059	1-249-413-11	CARBON	470	5%	1/4W	
R060	1-249-413-11	CARBON	470	5%	1/4W	
R061	1-249-413-11	CARBON	470	5%	1/4W	
R063	1-249-425-11	CARBON	4.7K	5%	1/4W	
R064	1-249-417-11	CARBON	1K	5%	1/4W	
R066	1-249-437-11	CARBON	47K	5%	1/4W	
R068	1-249-429-11	CARBON	10K	5%	1/4W	
R069	1-249-429-11	CARBON	10K	5%	1/4W	
R070	1-249-413-11	CARBON	470	5%	1/4W	
R071	1-249-421-11	CARBON	2.2K	5%	1/4W	
R072	1-249-405-11	CARBON	100	5%	1/4W	
R074	1-249-429-11	CARBON	10K	5%	1/4W	
R075	1-249-429-11	CARBON	10K	5%	1/4W	
R076	1-249-429-11	CARBON	10K	5%	1/4W	
R077	1-249-429-11	CARBON	10K	5%	1/4W	
R078	1-249-429-11	CARBON	10K	5%	1/4W	
R079	1-249-429-11	CARBON	10K	5%	1/4W	
R080	1-249-429-11	CARBON	10K	5%	1/4W	
R081	1-249-429-11	CARBON	10K	5%	1/4W	
R207	1-249-417-11	CARBON	1K	5%	1/4W	
R208	1-249-413-11	CARBON	470	5%	1/4W	
R209	1-249-424-11	CARBON	3.9K	5%	1/4W	
R210	1-249-420-11	CARBON	1.8K	5%	1/4W	
R211	1-247-849-00	CARBON	5.6K	5%	1/4W	
R212	1-249-417-11	CARBON	1K	5%	1/4W	
R213	1-249-424-11	CARBON	3.9K	5%	1/4W	
R214	1-249-420-11	CARBON	1.8K	5%	1/4W	
R215	1-249-423-11	CARBON	3.3K	5%	1/4W	
R216	1-249-413-11	CARBON	470	5%	1/4W	
R218	1-247-849-00	CARBON	5.6K	5%	1/4W	
R219	1-249-436-11	CARBON	39K	5%	1/4W	
R220	1-249-429-11	CARBON	10K	5%	1/4W	
R221	1-249-425-11	CARBON	4.7K	5%	1/4W	
R222	1-249-417-11	CARBON	1K	5%	1/4W	
R223	1-249-411-11	CARBON	330	5%	1/4W	
R224	1-215-493-00	CARBON	1M	5%	1/4W	
R225	1-249-434-11	CARBON	27K	5%	1/4W	
R226	1-249-435-11	CARBON	33K	5%	1/4W	
R227	1-249-413-11	CARBON	470	5%	1/4W	
R229	1-249-417-11	CARBON	1K	5%	1/4W	
R230	1-249-411-11	CARBON	330	5%	1/4W	
R233	1-249-421-11	CARBON	2.2K	5%	1/4W	
R234	1-249-429-11	CARBON	10K	5%	1/4W	
R235	1-249-429-11	CARBON	10K	5%	1/4W	
R236	1-249-413-11	CARBON	470	5%	1/4W	
R237	1-249-421-11	CARBON	2.2K	5%	1/4W	
R240	1-249-421-11	CARBON	2.2K	5%	1/4W	
R241	1-249-427-11	CARBON	6.8K	5%	1/4W	
R242	1-249-422-11	CARBON	2.7K	5%	1/4W	
R243	1-249-425-11	CARBON	4.7K	5%	1/4W	
R244	1-249-421-11	CARBON	2.2K	5%	1/4W	
R245	1-249-413-11	CARBON	470	5%	1/4W	
R246	1-249-421-11	CARBON	2.2K	5%	1/4W	
R247	1-249-421-11	CARBON	2.2K	5%	1/4W	
R248	1-249-413-11	CARBON	470	5%	1/4W	
R249	1-249-417-11	CARBON	1K	5%	1/4W	
R250	1-249-413-11	CARBON	470	5%	1/4W	
R251	1-249-423-11	CARBON	3.3K	5%	1/4W	
R252	1-215-437-00	METAL	4.7K	1%	1/6W	
R253	1-215-425-00	METAL	1.5K	1%	1/6W	
R254	1-249-425-11	CARBON	4.7K	5%	1/4W	
R255	1-249-417-11	CARBON	1K	5%	1/4W	
R256	1-249-419-11	CARBON	1.5K	5%	1/4W	
R257	1-249-417-11	CARBON	1K	5%	1/4W	
R258	1-249-413-11	CARBON	470	5%	1/4W	
R259	1-249-415-11	CARBON	680	5%	1/4W	
R260	1-249-409-11	CARBON	220	5%	1/4W	
R261	1-249-421-11	CARBON	2.2K	5%	1/4W	
R262	1-249-421-11	CARBON	2.2K	5%	1/4W	
R263	1-249-416-11	CARBON	820	5%	1/4W	

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description			Remark
R264	1-249-421-11	CARBON	2.2K	5%	1/4W
R265	1-249-406-11	CARBON	120	5%	1/4W
R266	1-249-418-11	CARBON	1.2K	5%	1/4W
R267	1-249-421-11	CARBON	2.2K	5%	1/4W
R268	1-247-849-00	CARBON	5.6K	5%	1/4W
R269	1-249-434-11	CARBON	27K	5%	1/4W
R270	1-249-435-11	CARBON	33K	5%	1/4W
R271	1-249-424-11	CARBON	3.9K	5%	1/4W
R272	1-249-420-11	CARBON	1.8K	5%	1/4W
R273	1-249-425-11	CARBON	4.7K	5%	1/4W
R274	1-249-424-11	CARBON	3.9K	5%	1/4W
R275	1-249-423-11	CARBON	3.3K	5%	1/4W
R276	1-249-429-11	CARBON	10K	5%	1/4W
R277	1-249-413-11	CARBON	470	5%	1/4W
R278	1-249-417-11	CARBON	1K	5%	1/4W
R279	1-249-417-11	CARBON	1K	5%	1/4W
R280	1-249-417-11	CARBON	1K	5%	1/4W
R281	1-247-849-00	CARBON	5.6K	5%	1/4W
R282	1-249-436-11	CARBON	39K	5%	1/4W
R283	1-249-429-11	CARBON	10K	5%	1/4W
R284	1-249-411-11	CARBON	330	5%	1/4W
R285	1-215-493-00	CARBON	1M	5%	1/4W
R286	1-249-413-11	CARBON	470	5%	1/4W
R287	1-249-423-11	CARBON	3.3K	5%	1/4W
R288	1-249-413-11	CARBON	470	5%	1/4W
R289	1-249-417-11	CARBON	1K	5%	1/4W
R290	1-249-435-11	CARBON	33K	5%	1/4W
R291	1-249-431-11	CARBON	15K	5%	1/4W
R292	1-249-417-11	CARBON	1K	5%	1/4W
R293	1-249-417-11	CARBON	1K	5%	1/4W
R294	1-249-417-11	CARBON	1K	5%	1/4W
R295	1-249-421-11	CARBON	2.2K	5%	1/4W
R296	1-249-417-11	CARBON	1K	5%	1/4W
R297	1-249-417-11	CARBON	1K	5%	1/4W
R298	1-249-421-11	CARBON	2.2K	5%	1/4W
R299	1-249-413-11	CARBON	470	5%	1/4W
R300	1-249-417-11	CARBON	1K	5%	1/4W
R301	1-249-435-11	CARBON	33K	5%	1/4W
R302	1-249-431-11	CARBON	15K	5%	1/4W
R303	1-249-411-11	CARBON	330	5%	1/4W
R304	1-249-415-11	CARBON	680	5%	1/4W
R305	1-249-417-11	CARBON	1K	5%	1/4W
R306	1-249-423-11	CARBON	3.3K	5%	1/4W
R307	1-249-413-11	CARBON	470	5%	1/4W
R308	1-249-421-11	CARBON	2.2K	5%	1/4W
R309	1-249-421-11	CARBON	2.2K	5%	1/4W
R310	1-247-855-31	CARBON	10K	5%	1/4W
R311	1-249-431-11	CARBON	15K	5%	1/4W
R312	1-249-425-11	CARBON	4.7K	5%	1/4W
R313	1-249-417-11	CARBON	1K	5%	1/4W
R314	1-249-417-11	CARBON	1K	5%	1/4W
R315	1-249-417-11	CARBON	1K	5%	1/4W
R316	1-249-425-11	CARBON	4.7K	5%	1/4W
R317	1-249-431-11	CARBON	15K	5%	1/4W
R318	1-249-413-11	CARBON	470	5%	1/4W
R319	1-249-421-11	CARBON	2.2K	5%	1/4W
R320	1-249-433-11	CARBON	22K	5%	1/4W
R321	1-249-425-11	CARBON	4.7K	5%	1/4W
R322	1-249-417-11	CARBON	1K	5%	1/4W
R323	1-249-411-11	CARBON	330	5%	1/4W
R324	1-249-417-11	CARBON	1K	5%	1/4W
R325	1-249-411-11	CARBON	330	5%	1/4W
R326	1-249-413-11	CARBON	470	5%	1/4W
R327	1-249-423-11	CARBON	3.3K	5%	1/4W
R328	1-249-413-11	CARBON	470	5%	1/4W
R329	1-215-445-00	METAL	10K	1%	1/6W
R330	1-215-445-00	METAL	10K	1%	1/6W
R331	1-249-413-11	CARBON	470	5%	1/4W
R332	1-249-413-11	CARBON	470	5%	1/4W
R333	1-249-413-11	CARBON	470	5%	1/4W
R334	1-249-413-11	CARBON	470	5%	1/4W
R335	1-249-421-11	CARBON	2.2K	5%	1/4W
R336	1-215-421-00	METAL	1K	1%	1/6W
R337	1-215-421-00	METAL	1K	1%	1/6W
R338	1-249-425-11	CARBON	4.7K	5%	1/4W
R339	1-249-431-11	CARBON	15K	5%	1/4W
R340	1-249-417-11	CARBON	1K	5%	1/4W
R341	1-249-413-11	CARBON	470	5%	1/4W
R342	1-249-417-11	CARBON	1K	5%	1/4W
R343	1-249-413-11	CARBON	470	5%	1/4W
R344	1-249-431-11	CARBON	15K	5%	1/4W
R345	1-249-425-11	CARBON	4.7K	5%	1/4W
R346	1-249-429-11	CARBON	10K	5%	1/4W
R347	1-249-417-11	CARBON	1K	5%	1/4W
R348	1-249-417-11	CARBON	1K	5%	1/4W
R349	1-249-413-11	CARBON	470	5%	1/4W
R350	1-249-421-11	CARBON	2.2K	5%	1/4W
R351	1-249-431-11	CARBON	15K	5%	1/4W
R401	1-249-431-11	CARBON	15K	5%	1/4W
R402	1-249-418-11	CARBON	1.2K	5%	1/4W
R403	1-249-425-11	CARBON	4.7K	5%	1/4W
R404	1-249-413-11	CARBON	470	5%	1/4W
R405	1-249-413-11	CARBON	470	5%	1/4W
R406	1-249-421-11	CARBON	2.2K	5%	1/4W
R407	1-249-421-11	CARBON	2.2K	5%	1/4W
R408	1-249-433-11	CARBON	22K	5%	1/4W
R409	1-249-417-11	CARBON	1K	5%	1/4W
R410	1-249-429-11	CARBON	10K	5%	1/4W
R411	1-249-417-11	CARBON	1K	5%	1/4W
R412	1-249-421-11	CARBON	2.2K	5%	1/4W
R413	1-249-413-11	CARBON	470	5%	1/4W
R414	1-249-413-11	CARBON	470	5%	1/4W
R415	1-249-417-11	CARBON	1K	5%	1/4W
R416	1-249-433-11	CARBON	22K	5%	1/4W
R417	1-249-429-11	CARBON	10K	5%	1/4W
R418	1-249-413-11	CARBON	470	5%	1/4W
R419	1-249-413-11	CARBON	470	5%	1/4W
R420	1-249-408-11	CARBON	180	5%	1/4W
R421	1-249-421-11	CARBON	2.2K	5%	1/4W
R422	1-249-405-11	CARBON	100	5%	1/4W
R423	1-249-413-11	CARBON	470	5%	1/4W
R424	1-249-421-11	CARBON	2.2K	5%	1/4W
R425	1-249-414-11	CARBON	560	5%	1/4W
R426	1-249-416-11	CARBON	820	5%	1/4W
R427	1-249-416-11	CARBON	820	5%	1/4W
R428	1-249-414-11	CARBON	560	5%	1/4W
R429	1-249-417-11	CARBON	1K	5%	1/4W
R430	1-249-421-11	CARBON	2.2K	5%	1/4W
R431	1-249-413-11	CARBON	470	5%	1/4W
R432	1-249-421-11	CARBON	2.2K	5%	1/4W
R433	1-249-405-11	CARBON	100	5%	1/4W
R434	1-249-433-11	CARBON	22K	5%	1/4W
R435	1-249-405-11	CARBON	100	5%	1/4W
R436	1-249-413-11	CARBON	470	5%	1/4W
R437	1-249-414-11	CARBON	560	5%	1/4W
R438	1-249-416-11	CARBON	820	5%	1/4W
R439	1-249-421-11	CARBON	2.2K	5%	1/4W
R440	1-249-416-11	CARBON	820	5%	1/4W
R441	1-249-414-11	CARBON	560	5%	1/4W
R442	1-249-417-11	CARBON	1K	5%	1/4W

When indicating parts by reference number, please include the board name.

CY-2

Ref.No	Part No.	Description			Remark
R443	1-249-413-11	CARBON	470	5%	1/4W
R444	1-249-421-11	CARBON	2.2K	5%	1/4W
R445	1-249-421-11	CARBON	2.2K	5%	1/4W
R446	1-249-421-11	CARBON	2.2K	5%	1/4W
R447	1-247-849-00	CARBON	5.6K	5%	1/4W
R448	1-249-425-11	CARBON	4.7K	5%	1/4W
R449	1-249-413-11	CARBON	470	5%	1/4W
R450	1-249-421-11	CARBON	2.2K	5%	1/4W
R451	1-249-413-11	CARBON	470	5%	1/4W
R452	1-247-831-31	CARBON	1K	5%	1/4W
R453	1-215-421-00	METAL	1K	1%	1/6W
R454	1-215-421-00	METAL	1K	1%	1/6W
R455	1-249-410-11	CARBON	270	5%	1/4W
R456	1-249-421-11	CARBON	2.2K	5%	1/4W
R458	1-249-429-11	CARBON	10K	5%	1/4W
R459	1-249-429-11	CARBON	10K	5%	1/4W
R460	1-249-413-11	CARBON	470	5%	1/4W
R461	1-249-421-11	CARBON	2.2K	5%	1/4W
R462	1-249-417-11	CARBON	1K	5%	1/4W
R463	1-249-429-11	CARBON	10K	5%	1/4W
R464	1-249-429-11	CARBON	10K	5%	1/4W
R465	1-249-421-11	CARBON	2.2K	5%	1/4W
R466	1-249-410-11	CARBON	270	5%	1/4W
R467	1-249-417-11	CARBON	1K	5%	1/4W
R468	1-249-433-11	CARBON	22K	5%	1/4W
R469	1-249-429-11	CARBON	10K	5%	1/4W
R470	1-249-418-11	CARBON	1.2K	5%	1/4W
R471	1-249-417-11	CARBON	1K	5%	1/4W
R472	1-249-429-11	CARBON	10K	5%	1/4W
R473	1-249-421-11	CARBON	2.2K	5%	1/4W
R474	1-249-429-11	CARBON	10K	5%	1/4W
R475	1-249-421-11	CARBON	2.2K	5%	1/4W
R476	1-249-433-11	CARBON	22K	5%	1/4W
R477	1-249-429-11	CARBON	10K	5%	1/4W
R478	1-249-411-11	CARBON	330	5%	1/4W
R479	1-249-409-11	CARBON	220	5%	1/4W
R480	1-249-408-11	CARBON	180	5%	1/4W
R481	1-249-421-11	CARBON	2.2K	5%	1/4W
R488	1-249-413-11	CARBON	470	5%	1/4W
R489	1-249-417-11	CARBON	1K	5%	1/4W
R490	1-249-413-11	CARBON	470	5%	1/4W
R491	1-249-425-11	CARBON	4.7K	5%	1/4W
R492	1-249-417-11	CARBON	1K	5%	1/4W
R493	1-249-405-11	CARBON	100	5%	1/4W
R494	1-249-421-11	CARBON	2.2K	5%	1/4W
R495	1-249-414-11	CARBON	560	5%	1/4W
R496	1-249-416-11	CARBON	820	5%	1/4W
R497	1-249-416-11	CARBON	820	5%	1/4W
R498	1-249-414-11	CARBON	560	5%	1/4W
R499	1-249-417-11	CARBON	1K	5%	1/4W
R500	1-249-421-11	CARBON	2.2K	5%	1/4W
R501	1-249-413-11	CARBON	470	5%	1/4W
R503	1-249-413-11	CARBON	470	5%	1/4W
R504	1-249-427-11	CARBON	6.8K	5%	1/4W
R505	1-249-433-11	CARBON	22K	5%	1/4W
R506	1-249-413-11	CARBON	470	5%	1/4W
R507	1-249-417-11	CARBON	1K	5%	1/4W
R508	1-249-408-11	CARBON	180	5%	1/4W
R509	1-249-421-11	CARBON	2.2K	5%	1/4W
R510	1-249-419-11	CARBON	1.5K	5%	1/4W
R511	1-249-421-11	CARBON	2.2K	5%	1/4W
R512	1-249-423-11	CARBON	3.3K	5%	1/4W
R513	1-249-413-11	CARBON	470	5%	1/4W
R514	1-249-417-11	CARBON	1K	5%	1/4W
R515	1-249-423-11	CARBON	3.3K	5%	1/4W
R516	1-249-417-11	CARBON	1K	5%	1/4W
R517	1-249-429-11	CARBON	10K	5%	1/4W
R518	1-249-436-11	CARBON	39K	5%	1/4W
R519	1-249-423-11	CARBON	3.3K	5%	1/4W
R520	1-249-417-11	CARBON	1K	5%	1/4W
R522	1-249-413-11	CARBON	470	5%	1/4W
R523	1-249-413-11	CARBON	470	5%	1/4W
R524	1-249-417-11	CARBON	1K	5%	1/4W
R525	1-215-449-00	METAL	15K	1%	1/6W
R526	1-215-453-00	METAL	22K	1%	1/6W
R527	1-215-449-00	METAL	15K	1%	1/6W
R528	1-215-453-00	METAL	22K	1%	1/6W
R529	1-249-417-11	CARBON	1K	5%	1/4W
R530	1-249-417-11	CARBON	1K	5%	1/4W
R531	1-249-417-11	CARBON	1K	5%	1/4W
R532	1-249-419-11	CARBON	1.5K	5%	1/4W
R533	1-249-417-11	CARBON	1K	5%	1/4W
R650	1-249-441-11	CARBON	100K	5%	1/4W
R651	1-249-441-11	CARBON	100K	5%	1/4W
R652	1-249-441-11	CARBON	100K	5%	1/4W
R653	1-249-441-11	CARBON	100K	5%	1/4W
R654	1-249-441-11	CARBON	100K	5%	1/4W
R655	1-249-441-11	CARBON	100K	5%	1/4W
R851	1-249-441-11	CARBON	100K	5%	1/4W
R852	1-215-493-00	CARBON	1M	5%	1/4W
R853	1-215-469-00	METAL	100K	1%	1/6W
R854	1-215-469-00	METAL	100K	1%	1/6W
R855	1-215-469-00	METAL	100K	1%	1/6W
R856	1-215-469-00	METAL	100K	1%	1/6W
R857	1-215-445-00	METAL	10K	1%	1/6W
R858	1-215-449-00	METAL	15K	1%	1/6W
R859	1-249-437-11	CARBON	47K	5%	1/4W
R860	1-249-429-11	CARBON	10K	5%	1/4W
R861	1-215-471-00	METAL	120K	1%	1/6W
R862	1-247-883-00	CARBON	150K	5%	1/4W
R863	1-249-422-11	CARBON	2.7K	5%	1/4W
R864	1-249-419-11	CARBON	1.5K	5%	1/4W
R865	1-249-419-11	CARBON	1.5K	5%	1/4W
R866	1-249-422-11	CARBON	2.7K	5%	1/4W
R867	1-249-428-11	CARBON	8.2K	5%	1/4W
R868	1-249-429-11	CARBON	10K	5%	1/4W
R869	1-249-429-11	CARBON	10K	5%	1/4W
R870	1-249-431-11	CARBON	15K	5%	1/4W
R871	1-249-439-11	CARBON	68K	5%	1/4W
R872	1-249-427-11	CARBON	6.8K	5%	1/4W
R873	1-215-462-00	CARBON	51K	5%	1/4W
R874	1-215-462-00	CARBON	51K	5%	1/4W
R875	1-249-429-11	CARBON	10K	5%	1/4W
R876	1-249-422-11	CARBON	2.7K	5%	1/4W
R877	1-249-432-11	CARBON	18K	5%	1/4W
R900	1-247-849-00	CARBON	5.6K	5%	1/4W
R901	1-249-433-11	CARBON	22K	5%	1/4W
R902	1-249-417-11	CARBON	1K	5%	1/4W
R903	1-249-417-11	CARBON	1K	5%	1/4W
R904	1-249-417-11	CARBON	1K	5%	1/4W
R905	1-249-421-11	CARBON	2.2K	5%	1/4W
R906	1-249-416-11	CARBON	820	5%	1/4W
R907	1-249-421-11	CARBON	2.2K	5%	1/4W
R908	1-249-414-11	CARBON	560	5%	1/4W
R909	1-249-414-11	CARBON	560	5%	1/4W
R910	1-249-421-11	CARBON	2.2K	5%	1/4W
R911	1-249-405-11	CARBON	100	5%	1/4W
R912	1-249-413-11	CARBON	470	5%	1/4W
R913	1-249-416-11	CARBON	820	5%	1/4W
R914	1-249-417-11	CARBON	1K	5%	1/4W

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description			Remark
R915	1-249-417-11	CARBON	1K	5%	1/4W
R916	1-249-427-11	CARBON	6.8K	5%	1/4W
R917	1-249-429-11	CARBON	10K	5%	1/4W
R919	1-249-417-11	CARBON	1K	5%	1/4W
R920	1-249-413-11	CARBON	470	5%	1/4W
R921	1-249-417-11	CARBON	1K	5%	1/4W
R926	1-249-425-11	CARBON	4.7K	5%	1/4W
R927	1-249-433-11	CARBON	22K	5%	1/4W
R928	1-249-437-11	CARBON	47K	5%	1/4W
R929	1-249-419-11	CARBON	1.5K	5%	1/4W
R930	1-249-415-11	CARBON	680	5%	1/4W
R931	1-249-425-11	CARBON	4.7K	5%	1/4W
R932	1-249-419-11	CARBON	1.5K	5%	1/4W
R933	1-249-417-11	CARBON	1K	5%	1/4W
R934	1-249-433-11	CARBON	22K	5%	1/4W
R935	1-249-433-11	CARBON	22K	5%	1/4W
R936	1-249-413-11	CARBON	470	5%	1/4W
R937	1-247-849-00	CARBON	5.6K	5%	1/4W
R938	1-247-849-00	CARBON	5.6K	5%	1/4W
R939	1-249-421-11	CARBON	2.2K	5%	1/4W
R940	1-247-849-00	CARBON	5.6K	5%	1/4W
R941	1-249-433-11	CARBON	22K	5%	1/4W
R942	1-247-849-00	CARBON	5.6K	5%	1/4W
R943	1-247-849-00	CARBON	5.6K	5%	1/4W
R944	1-249-424-11	CARBON	3.9K	5%	1/4W
R945	1-247-849-00	CARBON	5.6K	5%	1/4W
R946	1-249-433-11	CARBON	22K	5%	1/4W
R947	1-247-849-00	CARBON	5.6K	5%	1/4W
R949	1-249-417-11	CARBON	1K	5%	1/4W
R950	1-249-413-11	CARBON	470	5%	1/4W
R951	1-249-425-11	CARBON	4.7K	5%	1/4W
R952	1-249-413-11	CARBON	470	5%	1/4W
R954	1-249-417-11	CARBON	1K	5%	1/4W
R955	1-249-417-11	CARBON	1K	5%	1/4W
R956	1-249-437-11	CARBON	47K	5%	1/4W
R957	1-249-431-11	CARBON	15K	5%	1/4W
R958	1-249-421-11	CARBON	2.2K	5%	1/4W
R959	1-249-417-11	CARBON	1K	5%	1/4W
R960	1-249-417-11	CARBON	1K	5%	1/4W
R961	1-249-421-11	CARBON	2.2K	5%	1/4W
R962	1-249-413-11	CARBON	470	5%	1/4W
R965	1-249-421-11	CARBON	2.2K	5%	1/4W
R966	1-124-838-00	CARBON	2K	5%	1/4W
R967	1-124-838-00	CARBON	2K	5%	1/4W
R968	1-249-419-11	CARBON	1.5K	5%	1/4W
R969	1-249-419-11	CARBON	1.5K	5%	1/4W
R970	1-215-394-00	CARBON	75	5%	1/4W
R971	1-215-394-00	CARBON	75	5%	1/4W
R972	1-249-433-11	CARBON	22K	5%	1/4W
R973	1-249-433-11	CARBON	22K	5%	1/4W
R974	1-249-429-11	CARBON	10K	5%	1/4W
R976	1-249-417-11	CARBON	1K	5%	1/4W

VARIABLE RESISTOR

Ref.No	Part No.	Description	Remark
RV002	1-228-990-00	RES, ADJ, CARBON 1K	
RV201	1-228-990-00	RES, ADJ, METAL GLAZE 1K	
RV202	1-228-990-00	RES, ADJ, METAL GLAZE 1K	
RV203	1-228-994-00	RES, ADJ, CARBON 10K	
RV204	1-228-990-00	RES, ADJ, METAL GLAZE 1K	
RV205	1-228-990-00	RES, ADJ, CARBON 1K	
RV206	1-228-990-00	RES, ADJ, METAL GLAZE 1K	
RV207	1-228-990-00	RES, ADJ, METAL GLAZE 1K	
RV208	1-228-994-00	RES, ADJ, CARBON 10K	
RV209	1-228-990-00	RES, ADJ, METAL GLAZE 1K	
RV210	1-228-990-00	RES, ADJ, METAL GLAZE 1K	
RV211	1-228-991-00	RES, ADJ, CARBON 2.2K	
RV212	1-228-991-00	RES, ADJ, CARBON 2.2K	
RV213	1-228-991-00	RES, ADJ, METAL GLAZE 2.2K	
RV214	1-228-990-00	RES, ADJ, METAL GLAZE 1K	
RV402	1-228-991-00	RES, ADJ, CARBON 2.2K	
RV403	1-228-990-00	RES, ADJ, CARBON 1K	
RV404	1-228-990-00	RES, ADJ, CARBON 1K	
RV405	1-228-991-00	RES, ADJ, CARBON 2.2K	
RV406	1-228-993-00	RES, ADJ, CARBON 4.7K	
RV407	1-228-994-00	RES, ADJ, METAL GLAZE 10K	
RV408	1-228-994-00	RES, ADJ, METAL GLAZE 10K	
RV409	1-228-991-00	RES, ADJ, CARBON 2.2K	
RV851	1-228-997-00	RES, ADJ, CARBON 100K	
RV900	1-228-997-00	RES, ADJ, CARBON 100K	

When indicating parts by reference number, please include the board name.

RELAY

Ref.No	Part No.	Description
RY001	1-515-529-11	RELAY

SWITCH

Ref.No	Part No.	Description
S401	1-553-725-21	SWITCH, SLIDE

TRANSFORMER

Ref.No	Part No.	Description
T001	1-404-732-11	COIL 15UH
T002	1-404-732-11	COIL 15UH

CRYSTAL

Ref.No	Part No.	Description
X001	1-527-723-00	VIBRATOR, CRYSTAL (14.187)
X002	1-527-724-21	VIBRATOR, CRYSTAL (4fsc)

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*A-7070-565-A VP-8 BOARD, COMPLETE
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CAPACITOR

Ref.No	Part No.	Description			
C956	1-124-465-00	ELECT	0.47MF	20%	50V
C957	1-124-462-00	ELECT	10MF	20%	16V
C958	1-124-462-00	ELECT	10MF	20%	16V
C959	1-161-379-00	CERAMIC	0.01MF	30%	16V
C960	1-124-236-00	ELECT	47MF	20%	10V
C961	1-161-379-00	CERAMIC	0.01MF	30%	16V
C962	1-124-236-00	ELECT	47MF	20%	10V

CONNECTOR

Ref.No	Part No.	Description
CN904	*1-564-003-00	PIN, CONNECTOR 4P
CN905	*1-563-465-11	SOCKET, CONNECTOR 14P

IC

Ref.No	Part No.	Description
IC901	8-759-240-53	IC TC4053BP
IC907	8-759-103-19	IC UPC319C

TRANSISTOR

Ref.No	Part No.	Description
Q920	8-729-600-27	TRANSISTOR 2SC634SP
Q922	8-729-600-27	TRANSISTOR 2SC634SP
Q923	8-729-600-27	TRANSISTOR 2SC634SP
Q924	8-729-204-83	TRANSISTOR 2SA1048GR
Q925	8-729-204-83	TRANSISTOR 2SA1048GR
Q926	8-729-204-83	TRANSISTOR 2SA1048GR
Q927	8-729-204-83	TRANSISTOR 2SA1048GR

RESISTOR

Ref.No	Part No.	Description	Remark
R801	1-249-413-11	CARBON 470 5% 1/4W	
R802	1-249-417-11	CARBON 1K 5% 1/4W	
R803	1-249-417-11	CARBON 1K 5% 1/4W	
R804	1-249-434-11	CARBON 27K 5% 1/4W	
R805	1-249-437-11	CARBON 47K 5% 1/4W	
R806	1-249-409-11	CARBON 220 5% 1/4W	
R807	1-249-425-11	CARBON 4.7K 5% 1/4W	
R808	1-249-413-11	CARBON 470 5% 1/4W	
R809	1-247-849-00	CARBON 5.6K 5% 1/4W	
R811	1-249-425-11	CARBON 4.7K 5% 1/4W	
R812	1-249-413-11	CARBON 470 5% 1/4W	
R813	1-249-427-11	CARBON 6.8K 5% 1/4W	
R987	1-249-421-11	CARBON 2.2K 5% 1/4W	
R989	1-249-419-11	CARBON 1.5K 5% 1/4W	
R991	1-249-413-11	CARBON 470 5% 1/4W	
R993	1-249-409-11	CARBON 220 5% 1/4W	
R994	1-249-428-11	CARBON 8.2K 5% 1/4W	
R995	1-249-425-11	CARBON 4.7K 5% 1/4W	
R996	1-249-409-11	CARBON 220 5% 1/4W	
R997	1-247-849-00	CARBON 5.6K 5% 1/4W	
R998	1-249-437-11	CARBON 47K 5% 1/4W	
R999	1-249-419-11	CARBON 1.5K 5% 1/4W	

VARIABLE RESISTOR

Ref.No	Part No.	Description	Remark
RV904	1-230-719-11	RES, ADJ, CARBON 2.2K	
RV905	1-230-497-11	RES, ADJ, CARBON 22K	

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*A-7070-558-A PW-51 BOARD, COMPLETE (AEP MODEL)
*A-7070-557-A PW-51 BOARD, COMPLETE (UK, AUS MODEL)

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Ref.No	Part No.	Description	Remark
	*1-533-189-11	HOLDER, FUSE	
	7-685-646-79	SCREW BVTP	

CAPACITOR

Ref.No	Part No.	Description	Remark
C101	⚠1-136-472-11	FILM 0.1MF 20% 250V	
C104	1-124-636-00	ELECT 3300MF 20% 25V	
C105	1-123-875-11	ELECT 10MF 20% 50V	
C106	1-126-101-11	ELECT 100MF 20% 16V	
C107	1-161-379-00	CERAMIC 0.01MF 30% 16V	
C108	1-161-051-00	CERAMIC 0.01MF 10% 25V	
C109	1-161-051-00	CERAMIC 0.01MF 10% 25V	
C110	1-124-898-11	ELECT 4700MF 20% 16V	
C111	1-124-898-11	ELECT 4700MF 20% 16V	
C112	1-123-875-11	ELECT 10MF 20% 50V	
C113	1-123-875-11	ELECT 10MF 20% 50V	
C116	1-124-444-00	ELECT 220MF 20% 10V	
C117	1-124-444-00	ELECT 220MF 20% 10V	
C118	1-161-051-00	CERAMIC 0.01MF 10% 25V	
C119	1-161-051-00	CERAMIC 0.01MF 10% 25V	
C120	1-124-887-00	ELECT 3300MF 20% 16V	
C121	1-124-887-00	ELECT 3300MF 20% 16V	
C122	1-123-875-11	ELECT 10MF 20% 50V	
C123	1-123-875-11	ELECT 10MF 20% 50V	
C124	1-124-444-00	ELECT 220MF 20% 10V	
C125	1-124-444-00	ELECT 220MF 20% 10V	
C126	1-161-379-00	CERAMIC 0.01MF 30% 16V	
C127	1-161-379-00	CERAMIC 0.01MF 30% 16V	
C128	1-123-875-11	ELECT 10MF 20% 50V	
C130	1-124-477-11	ELECT 47MF 20% 25V	

CONNECTOR

Ref.No	Part No.	Description	Remark
CN107	*1-560-893-00	PIN, CONNECTOR 5P	
CN108	*1-560-896-00	PIN, CONNECTOR 8P	
CN109	*1-564-687-11	PIN, CONNECTOR 3P	
CN110	*1-564-321-00	PIN, CONNECTOR 2P	

DIODE

Ref.No	Part No.	Description	Remark
D101	8-719-200-82	DIODE 11ES2	
D102	8-719-200-82	DIODE 11ES2	
D103	8-719-500-35	DIODE D2SB10	
D104	8-719-500-04	DIODE S1WB40	

FUSE

Ref.No	Part No.	Description	Remark
F101	⚠1-532-259-00	FUSE, TIME-LAG 1.6A 250V	

IC

Ref.No	Part No.	Description	Remark
IC101	8-759-604-37	IC M5F78M09	
IC104	8-759-604-99	IC M5F78M06	
IC105	8-759-604-94	IC M5F79M06	
IC106	8-759-914-44	IC TL431CLPB	

IC LINK

Ref.No	Part No.	Description	Remark
PS101	⚠1-532-605-00	LINK, IC ICP-N10 (0.4A)	
PS104	⚠1-532-605-00	LINK, IC ICP-N10 (0.4A)	
PS105	⚠1-532-605-00	LINK, IC ICP-N10 (0.4A)	

RESISTOR

Ref.No	Part No.	Description	Remark
R101	⚠1-249-470-11	CARBON 0.47 5% 1/2W	F
R102	⚠1-249-470-11	CARBON 0.47 5% 1/2W	F
R103	1-249-434-11	CARBON 27K 5% 1/4W	
R104	1-247-849-00	CARBON 5.6K 5% 1/4W	

VARIABLE RESISTOR

Ref.No	Part No.	Description	Remark
RV101	1-228-990-00	RES, ADJ, CARBON 1K	

* * *

*1-623-678-11 MJ-14 BOARD

* * *

DIODE

Ref.No	Part No.	Description	Remark
D611	8-719-108-12	DIODE RD9.1EW	

JACK

Ref.No	Part No.	Description	Remark
J601	1-507-834-31	JACK (MIC)	

* * *

*A-7070-560-A WC-3 BOARD COMPLETE

* * *

Ref.No	Part No.	Description	Remark
	2-118-219-11	HOLDER (S), LED	
	3-662-262-00	HOLDER (D), LED	

DIODE

Ref.No	Part No.	Description	Remark
D321	8-719-940-80	DIODE SLR-34PC3	
D322	8-719-940-80	DIODE SLR-34PC3	
D323	8-719-940-80	DIODE SLR-34PC3	
D324	8-719-940-80	DIODE SLR-34PC3	
D325	8-719-940-98	DIODE SLR-34UR3	
D326	8-719-812-32	TLY123	
D327	8-719-940-98	DIODE SLR-34UR3	
D328	8-719-940-98	DIODE SLR-34UR3	

When indicating parts by reference number, please include the board name.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

RESISTOR

Ref.No	Part No.	Description			Remark
R331	1-249-413-11	CARBON	470	5%	1/4W
R332	1-249-413-11	CARBON	470	5%	1/4W
R333	1-249-413-11	CARBON	470	5%	1/4W
R334	1-249-413-11	CARBON	470	5%	1/4W
R335	1-249-413-11	CARBON	470	5%	1/4W
R336	1-249-413-11	CARBON	470	5%	1/4W
R339	1-249-413-11	CARBON	470	5%	1/4W
R341	1-249-413-11	CARBON	470	5%	1/4W
R342	1-249-437-11	CARBON	47K	5%	1/4W
R343	1-249-437-11	CARBON	47K	5%	1/4W

VARIABLE RESISTOR

Ref.No	Part No.	Description
RV311	1-237-420-11	RES, VAR, CARBON 1K (WIPE)
RV312	1-237-423-11	RES, VAR, CARBON 1K/1K (COLOR CORRECT)
RV313	1-237-422-11	RES, VAR, CARBON 20K/20K (FADER)

SWITCH

Ref.No	Part No.	Description
S301	1-570-797-11	SWITCH, PUSH (1 KEY)(◧)
S302	1-570-797-11	SWITCH, PUSH (1 KEY)(◨)
S303	1-570-797-11	SWITCH, PUSH (1 KEY)(⬒)
S304	1-570-797-11	SWITCH, PUSH (1 KEY)(⬓)
S305	1-570-797-11	SWITCH, PUSH (1 KEY)(COLOR CORRECT ON/OFF)
S306	1-570-797-11	SWITCH, PUSH (1 KEY)(WIDE RANGE)
S307	1-570-797-11	SWITCH, PUSH (1 KEY)(VIDEO FADER)
S308	1-570-797-11	SWITCH, PUSH (1 KEY)(AUDIO FADER)

****

*1-623-682-11 AM-12 BOARD

****

DIODE

Ref.No	Part No.	Description
D701	8-719-911-19	DIODE 1SS119
D702	8-719-911-19	DIODE 1SS119
D703	8-719-911-19	DIODE 1SS119
D704	8-719-911-19	DIODE 1SS119
D705	8-719-911-19	DIODE 1SS119
D706	8-719-911-19	DIODE 1SS119
D707	8-719-911-19	DIODE 1SS119
D708	8-719-911-19	DIODE 1SS119
D709	8-719-911-19	DIODE 1SS119

RESISTOR

Ref.No	Part No.	Description			Remark
R701	1-249-413-11	CARBON	470	5%	1/4W

VARIABLE RESISTOR

Ref.No	Part No.	Description
RV601	1-237-400-11	RES, VAR, CARBON 10K
RV602	1-237-400-11	RES, VAR, CARBON 10K
RV603	1-237-400-11	RES, VAR, CARBON 10K
RV604	1-237-400-11	RES, VAR, CARBON 10K

SWITCH

Ref.No	Part No.	Description
S701	1-570-796-21	SWITCH, ROTARY (BACK COLOR SELECT)

****

*1-623-681-11 AC-24 BOARD

****

SWITCH

Ref.No	Part No.	Description
S101	⚠1-553-318-00	SWITCH, PUSH(1 KEY)(POWER)

****

*1-623-683-11 PT-62 BOARD

****

CAPACITOR

Ref.No	Part No.	Description			Remark
C114	1-161-379-00	CERAMIC	0.01MF	30%	16V
C115	1-161-379-00	CERAMIC	0.01MF	30%	16V
C129	1-123-875-11	ELECT	10MF	20%	50V

IC

Ref.No	Part No.	Description
IC102	8-759-604-29	IC M5F7805
IC103	8-759-604-47	IC M5F7905
IC107	8-759-914-44	IC TL431CLPB

IC LINK

Ref.No	Part No.	Description
PS102	⚠1-532-727-11	LINK, IC ICP-N5 (0.25A)

RESISTOR

Ref.No	Part No.	Description			Remark
R105	1-249-423-11	CARBON	3.3K	5%	1/4W
R106	1-249-429-11	CARBON	10K	5%	1/4W

VARIABLE RESISTOR

Ref.No	Part No.	Description
RV102	1-228-991-00	RES, ADJ, CARBON 2.2K

****

*1-623-675-11 FT-32 BOARD

****

DIODE

Ref.No	Part No.	Description
D371	8-719-812-32	TLY123
D372	8-719-812-32	TLY123
D373	8-719-940-98	DIODE SLR-34UR3
D374	8-719-812-32	TLY123

RESISTOR

Ref.No	Part No.	Description			Remark
R381	1-249-418-11	CARBON	1.2K	5%	1/4W
R382	1-249-418-11	CARBON	1.2K	5%	1/4W
R383	1-249-418-11	CARBON	1.2K	5%	1/4W
R384	1-249-413-11	CARBON	470	5%	1/4W
R385	1-249-437-11	CARBON	47K	5%	1/4W
R386	1-249-437-11	CARBON	47K	5%	1/4W
R387	1-249-437-11	CARBON	47K	5%	1/4W
R388	1-249-413-11	CARBON	470	5%	1/4W

VARIABLE RESISTOR

Ref.No	Part No.	Description
RV361	1-237-399-11	RES, VAR, CARBON 1K
RV362	1-237-425-11	RES, VAR, CARBON 10K/10K
RV363	1-237-400-11	RES, VAR, CARBON 10K
RV364	1-237-399-11	RES, VAR, CARBON 1K

SWITCH

Ref.No	Part No.	Description
S351	1-570-797-11	SWITCH, PUSH (1 KEY)
S352	1-570-797-11	SWITCH, PUSH (1 KEY)
S353	1-570-797-11	SWITCH, PUSH (1 KEY)

****

MISCELLANEOUS

****

Ref.No	Part No.	Description
	⚠*1-551-732-00	CORD, POWER (AUS MODEL)
	⚠*1-551-884-00	CORD, POWER (UK MODEL)
	⚠ 1-555-795-00	CORD, POWER (AEP MODEL)
PT101	⚠ 1-448-998-11	TRANSFORMER, POWER

When indicating parts by reference number, please include the board name.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No Part No. Description Remark

****

ACCESSORIES AND PAKING MATERIALS

****

Part No.	Description	Remark
*2-118-254-01	INDIVIDUAL CARTON	
*2-118-255-01	CUSHION (RIGHT)	
*2-118-256-01	CUSHION (LEFT)	
*2-118-266-01	CUSHION (LOWER)	
3-701-630-00	BAG, POLYETHYLENE	
*3-764-900-11	INSTRUCTION, COLOR REFERENCE	
3-765-695-11	MANUAL, INSTRUCTION	

When indicating parts by reference number, please include the board name.

Sony Corporation
Consumer Video Group

English
87K0451-1
Printed in Japan

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XV-C700

SONY®

SERVICE MANUAL

AEP Model
UK Model
Australian Model

SUPPLEMENT-1

Subject : ELECTRICAL ADJUSTMENT

File this supplement with the service manual.

ACC

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1. ELECTRICAL ADJUSTMENT

During the adjustment, see the parts location diagram relevant to the adjustment on page 23, 24.

[Equipments required]

1) Color monitor TV
2) Oscilloscope: Mono- or Dual-trace, bandwidth more than 15MHz with delay mode.
3) Frequency counter (4 digits)
4) PAL pattern generator
5) Digital voltmeter
6) Audio level meter
7) PAL Vectorscope
8) Audio generator
9) Audio attenuator

[Preparation]

Perform the adjustments under following conditions unless otherwise noted.

Set up XV-C700 as follows:

- INPUT SELECT ················1
- VIDEO ART REVERSE ··········OFF
- VIDEO ART control·············MAX.
- PHASE CORRECT control········CENTER position
- GAMMA control ················CENTER position
- COLOR control ··················CENTER position
- REVERSE switch ················OFF
- COLOR SELECT ················COLOR BAR
- WIPE PATTERN
  - ◨: OFF
  - ◧: OFF
  - ⬓: OFF
  - ⬒: OFF
- WIPE lever ·······················MIN.
- COLOR CORRECT ·············OFF
- WIDE·······························OFF
- FADER VIDEO ···················OFF
- FADER AUDIO ···················OFF
- MIC LEVEL control ·············MAX.
- LINE LEVEL control ············MAX.
- SOURCE LEVEL control··········MAX.
- MASTER control ················MAX.
- WHITE CLIP ······················OFF

[Connection]

Connect the equipments as shown below.

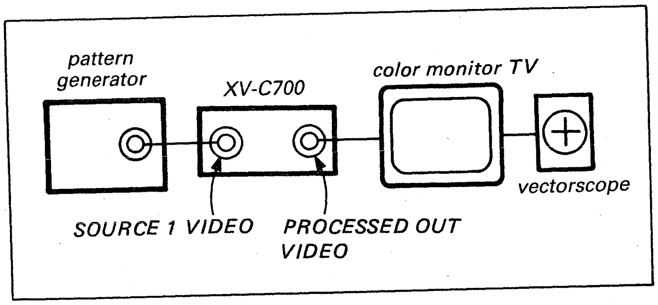

pattern generator
XV-C700
color monitor TV
vectorscope
SOURCE 1 VIDEO
PROCESSED OUT VIDEO

Fig. 1-1.

[Color bar signal]

Use a color bar signal obtained from video output of PAL pattern generator.

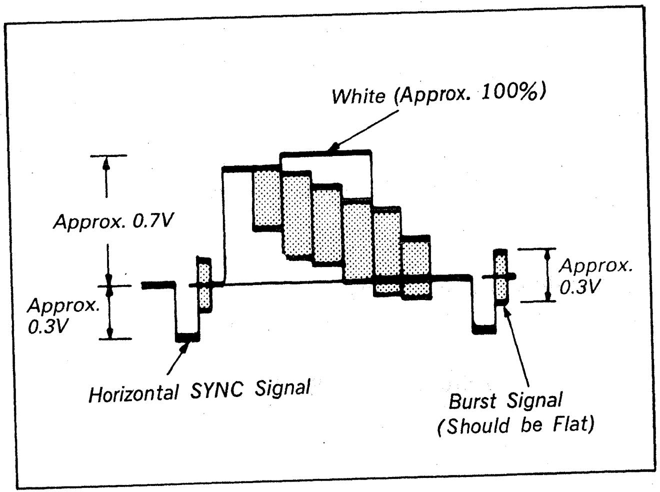

White (Approx. 100%)
Approx. 0.7V
Approx. 0.3V
Approx. 0.3V
Horizontal SYNC Signal
Burst Signal
(Should be Flat)

Fig. 1-2.

[Input/output levels and impedance]

Video input	SOURCE IN 1 and 2: (phono jack) 1Vp-p, 75 ohms, unbalanced, sync negative
Video output	PROCESSED OUT 1 and 2: (phono jack) SOURCE OUT 1 and 2: (phono jack) INVERSE OUT: (phono jack) 1Vp-p, 75 ohms, unbalanced, sync negative
Audio input	SOURCE IN 1 and 2: (2 phono jacks) LINE IN: (2 phono jacks) Input level: −10dBs (0dBs=0.775Vrms) Input impedance: more than 47k ohms MIC: (minijack) Input level: −60dBs Input impedance: 3k ohms
Audio output	PROCESSED OUT 1 and 2: (2 phono jacks) SOURCE OUT 1 and 2: (2 phono jacks) INVERSE OUT: (2 phono jacks) Output level: −10dBs at 47k ohms load Output impedance: less than 10k ohms

1-1. POWER SUPPLY ADJUSTMENTS

1-1-1. −5V Adjustment (PW-51 and PT-62 boards)

Signal	Arbitrary
Measurement point	Pin ④ of W101 on PW-51 board GND: Pin ③ of W101 on PW-51 board
Measurement instrument	Digital voltmeter
Adjustment element	RV102 on PT-62 board
Specified value	−5.00 ±0.01Vdc

[Adjustment procedure]

1) Adjust to −5.00 ±0.01Vdc with RV102.

1-1-2. +9V Adjustment (PW-51 board)

Signal	Arbitrary
Measurement point	Pin ① of W101 GND: Pin ③ of W101
Measurement instrument	Digital voltmeter
Adjustment element	RV101
Specified value	9.00 ±0.01Vdc

[Adjustment procedure]

1) Adjust to 9.00 ±0.01Vdc with RV101.

1-1-3. Confirmation of the Power Supply (PW-51 and PT-62 boards)

1. 9V DC check
   Confirm that 9.0 ±1.0Vdc (GND: TP105) appears on TP103.
2. 5V DC check
   Confirm that 5.0 ±0.2Vdc (GND: TP105) appears on TP104.
3. −5V DC check
   Confirm that −5.0 ±1.0Vdc (GND: TP105) appears on TP106.
4. 6V DC check
   Confirm that 6.00 ±0.25Vdc (GND: TP105) appears on TP107.
5. −6V DC check
   Confirm that −6.00 ±0.25Vdc (GND: TP105) appears on TP108.

PW-51 BOARD (COMPONENTS SIDE)

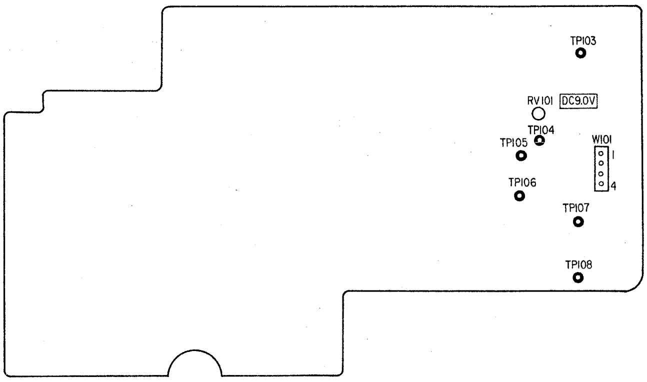


Fig. 1-3.

PT-62 BOARD (COMPONENTS SIDE)

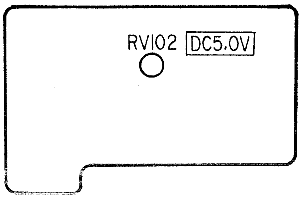


Fig. 1-4.

1-2. VIDEO SYSTEM ADJUSTMENTS

1-2-1. H. AFC Adjustment (SA-25 board)

Signal	No signal (SOURCE IN 1)
Measurement point	Pin ⑮ of IC104
Measurement instrument	Frequency counter
Adjustment element	RV101
Specified value	15,625 ±10Hz

[Preparation]

1) Pull out CN104 from SA-25 board.

[Adjustment procedure]

1) Adjust to 15,625 ±10Hz with RV101.

Note: Connect CN104 as it was before, after the adjustment.

1-2-2. H. F Blank Adjustment (SA-25 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV103
Specified value	1.8 ±0.2μsec

[Preparation]

1) Set REVERSE (NEGA/POSI) switch to ON.

[Adjustment procedure]

1) Adjust to 1.8 ±0.2μsec with RV103.

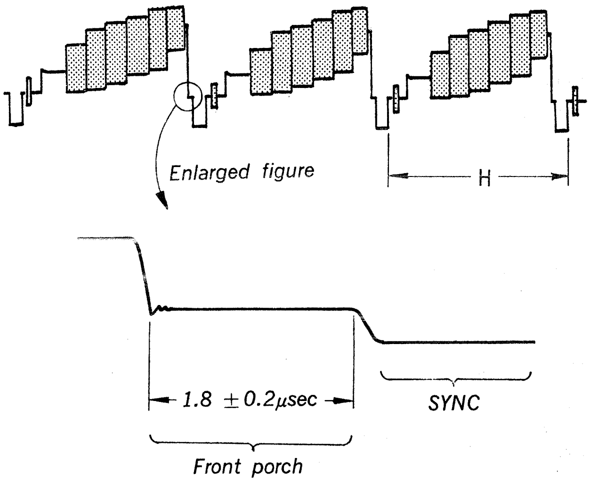

Enlarged figure
H
1.8 ±0.2μsec
SYNC
Front porch

Fig. 1-5.

1-2-3. H. B. Blank Adjustment (SA-25 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV102
Specified value	5.8 ±0.2μsec

[Preparation]

1) Set REVERSE (NEGA/POSI) switch to ON.

[Adjustment procedure]

1) Adjust to 5.8 ±0.2μsec with RV102.

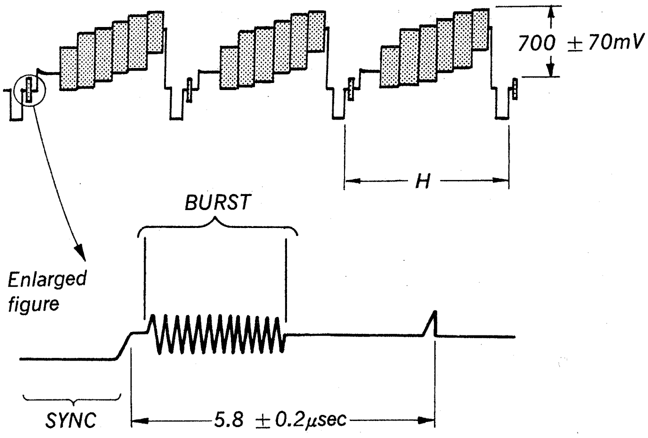

700 ±70mV
H
BURST
Enlarged figure
SYNC
5.8 ±0.2μsec

Fig. 1-6.

1-2-4. V. Blank Adjustment (SA-25 board)

Signal	Color bar
Measurement point	Pin ③ of IC106
Measurement instrument	Oscilloscope
Adjustment element	RV104
Specified value	1.60 ±0.06msec

[Adjustment procedure]

1) Adjust to 1.60 ±0.06msec with RV104.

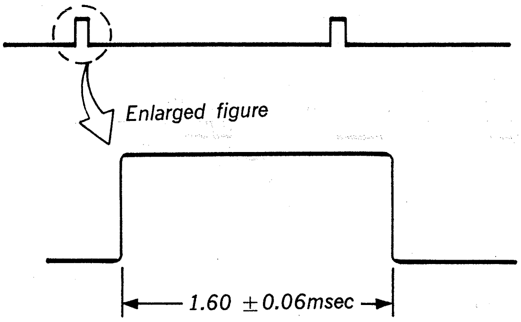

Enlarged figure
1.60 ±0.06msec

Fig. 1-7.

1-2-5. fsc Adjustment (SA-25 board)

Signal	Color bar
Measurement point	Emitter of Q702
Measurement instrument	Frequency counter
Adjustment element	CV701
Specified value	4433618.75 ±25Hz

[Preparation]

1) Pull out CN701 from SA-25 board.
2) Connect a 0.1μF capacitor between JW203 and ground (minus side of C278).

[Adjustment procedure]

1) Adjust to 4433618.75 ±25Hz with CV701.

1-2-6. ACC Peak Adjustment (SA-25 board)

Signal	Color bar
Measurement point	Emitter of Q707
Measurement instrument	Oscilloscope
Adjustment element	RV702
Specified value	Portion Ⓐ: 0 ±40mVp-p Portion Ⓑ: over 400mVp-p

[Adjustment procedure]

1) Adjust RV702 so that portion Ⓐ is 0 ±40mVp-p and portion Ⓑ is over 400mVp-p.

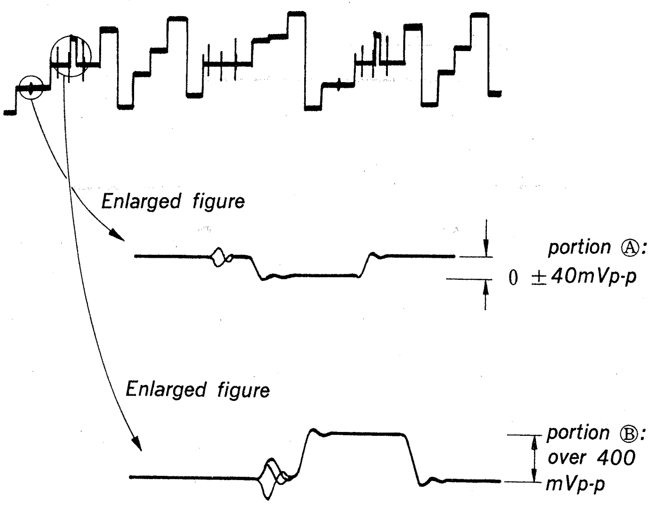


Fig. 1-8.

1-2-7. INT SYNC fsc Adjustment (CY-2 board)

Signal	No signal (SOURCE IN)
Measurement point	R033 (C026 side)
Measurement instrument	Frequency counter
Adjustment element	CV002
Specified value	4433618.75 ±10Hz

[Adjustment procedure]

1) Adjust to 4433618.75 ±10Hz with CV002.
   Take the nearest GND at this time.

1-2-8. INT SYNC VCO Adjustment (CY-2 board)

Signal	No signal (SOURCE IN)
Measurement point	Emitter of Q008
Measurement instrument	Digital voltmeter
Adjustment element	CV001
Specified value	2.7 ±0.5Vdc

[Adjustment procedure]

1) Adjust to 2.7 ±0.5Vdc with CV001.

1-2-9. Y-C Separation Adjustment (CY-2 board)

Signal	Color bar
Measurement point	Emitter of Q013
Measurement Instrument	Oscilloscope
Adjustment element	T001
Specified value	Below 40mVp-p

[Adjustment procedure]

1) Adjust T001 so that the chroma component becomes below 40mVp-p.

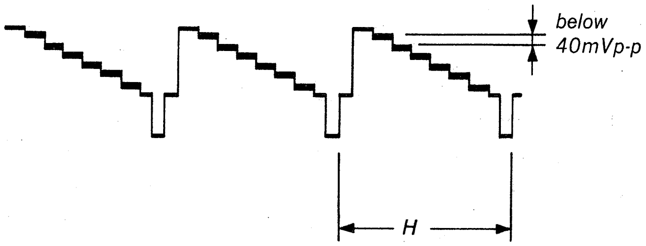


Fig. 1-9.

1-2-10. 4.43MHz MAX Adjustment (CY-2 board)

Signal	Color bar
Measurement point	Emitter of Q014
Measurement instrument	Oscilloscope
Adjustment element	T002
Specified value	Maximize chroma signal

[Adjustment procedure]

1) Adjust with T002 so that chroma signal becomes maximized.

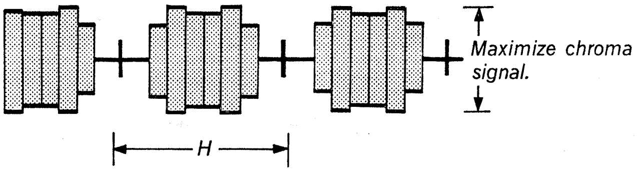


Fig. 1-10.

1-2-11. Y LINEAR CLIP Level Adjustment (CY-2 board)

Signal	Color bar
Measurement point	Pin ① of IC201 (TP201)
Measurement instrument	Oscilloscope
Adjustment element	RV201
Specified value	640 ±20mVp-p

[Adjustment procedure]

1) Adjust to 640 ±20mVp-p with RV201.

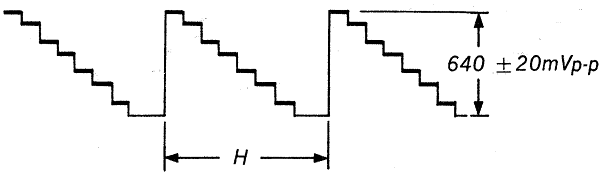


Fig. 1-11.

1-2-12. NEGA AGC Adjustment (CY-2 board)

Signal	Color bar
Measurement point	Pin ⑩ of IC201
Measurement instrument	Oscilloscope
Adjustment element	RV203
Specified value	640 ±20mVp-p

[Adjustment procedure]

1) Adjust to 640 ±20mVp-p with RV203.

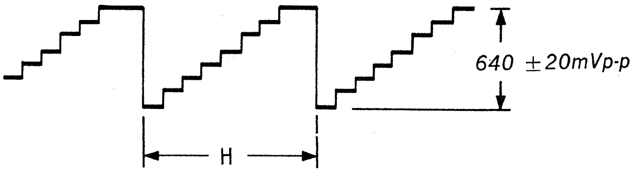


Fig. 1-12.

1-2-13. NEGA BLACK Level Adjustment (CY-2 board)

Signal	Color bar
Measurement point	Pin ⑪ of IC201
Measurement instrument	Oscilloscope
Adjustment element	RV202
Specified value	600 ±20mVp-p

[Adjustment procedure]

1) Adjust to 600 ±20mVp-p with RV202.

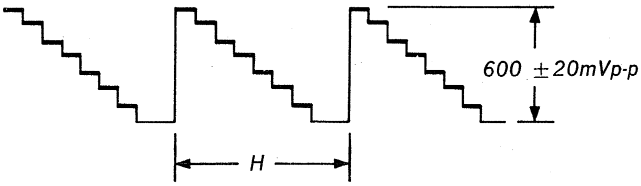


Fig. 1-13.

1-2-14. PILOT SIGNAL Level Adjustment (CY-2 board)

Signal	Color bar
Measurement point	Pin ⑮ of IC202
Measurement instrument	Oscilloscope
Adjustment element	RV204
Specified value	40 ±20mV (level difference between PILOT SIGNAL and the 100% white portion)

[Adjustment procedure]

1) Adjust RV204 so that the level difference between PILOT SIGNAL and the 100% white portion becomes 40 ±20mV.

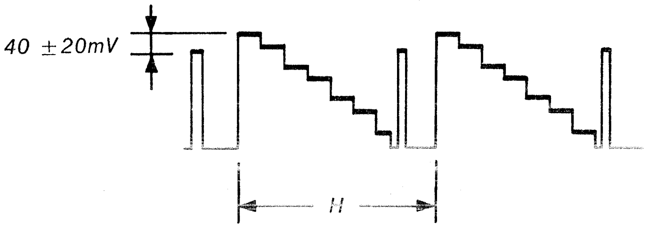


Fig. 1-14.

1-2-15. Y-γ CENTER Adjustment (CY-2 board)

Signal	Color bar
Measurement point	Collector of Q219
Measurement instrument	Oscilloscope (DC range)
Adjustment element	RV206
Specified value	−1.10 ±0.05Vdc

[Adjustment procedure]

1) Adjust the level to −1.10 ±0.05Vdc with RV206.

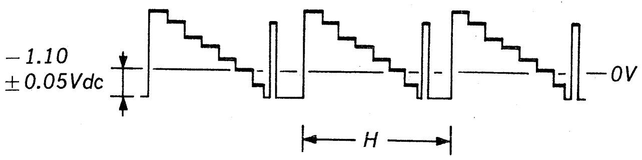


Fig. 1-15.

1-2-16. γ-AGC Adjustment (CY-2 board)

Signal	Color bar
Measurement point	Pin ㉒ of IC203
Measurement instrument	Oscilloscope
Adjustment element	RV208
Specified value	2.0 ±0.1Vp-p

[Adjustment procedure]

1) Adjust to 2.0 ±0.1Vp-p with RV208.

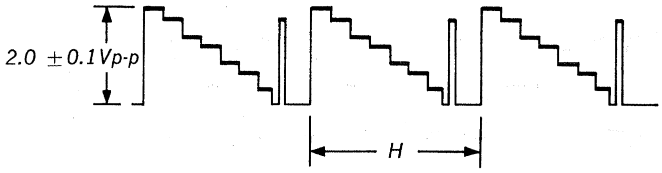


Fig. 1-16.

1-2-17. BLACK Level Adjustment (CY-2 board)

Signal	Color bar
Measurement point	Pin ① of IC203
Measurement instrument	Oscilloscope
Adjustment element	RV209
Specified value	1.85 ±0.10Vp-p

[Adjustment procedure]

1) Adjust to 1.85 ±0.10Vp-p with RV209.

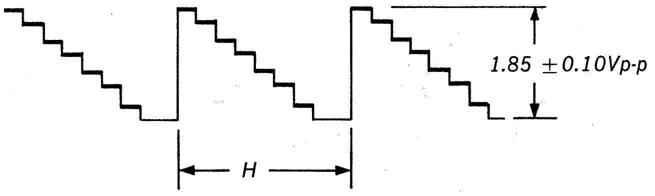


Fig. 1-17.

1-2-18. Y OUT Level Adjustment (CY-2 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV211
Specified value	700 ±30mV (level between pedestal and white peak except SYNC TIP)

[Adjustment procedure]

1) Adjust to 700 ±30mV with RV211.

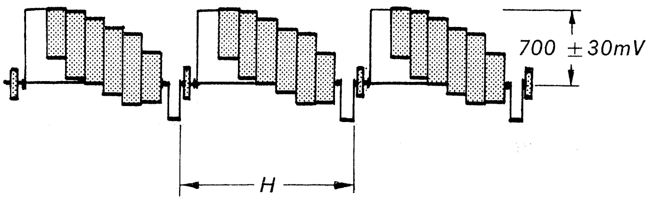


Fig. 1-18.

1-2-19. SYNC OUT Level Adjustment (CY-2 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV406
Specified value	300 ±15mV (SYNC level)

[Adjustment procedure]

1) Adjust to 300 ±15mV with RV406.

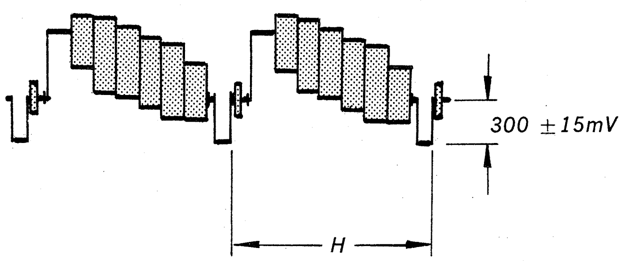


Fig. 1-19.

1-2-20. Y-γ LOW Adjustment (CY-2 board)

Signal	Color bar (without chroma signal)
Measurement point	1ch: PROCESSED OUT (75Ω terminated) 2ch: SOURCE IN 1
Measurement instrument	Oscilloscope
Adjustment element	RV207
Specification	Make the height of CYAN and GREEN same.

[Preparation]

1) Turn the GAMMA CONTROL fully clockwise (↻).
2) Set the MODE of oscilloscope to ADD.
3) Set the POLARITY of oscilloscope to INV.

[Adjustment procedure]

1) Input the waveform of PROCESSED OUT to 1ch of oscilloscope.
2) Input the waveform of SOURCE IN 1 to 2ch as well.
3) Adjust RV207 so that the height of CYAN and GREEN becomes the same.

Note: Since this adjustment and "1-2-21. Y-γ HIGH Adjustment" influence each other, repeat the adjustments until both specifications are satisfied.

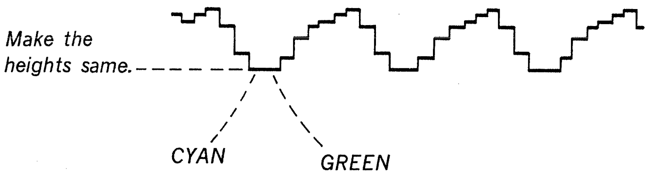


Fig. 1-20.

1-2-21. Y-γ HIGH Adjustment (CY-2 board)

Signal	Color bar (without chroma signal)
Measurement point	1ch: PROCESSED OUT (75Ω terminated) 2ch: SOURCE IN 1
Measurement instrument	Oscilloscope
Adjustment element	RV214
Specification	Make the height of CYAN and RED same.

[Preparation]

1) Turn the GAMMA CONTROL fully counterclockwise (↺).
2) Set the MODE of oscilloscope to ADD.
3) Set the POLARITY of oscilloscope to INV.

[Adjustment procedure]

1) Input the waveform of PROCESSED OUT to 1ch of oscilloscope.
2) Input the waveform of SOURCE IN 1 to 2ch as well.
3) Adjust RV214 so that the height of CYAN and RED becomes the same.

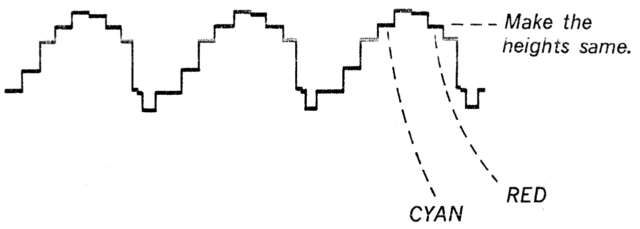


Fig. 1-21.

1-2-22. COLOR CONTROL CENTER Adjustment (CY-2 board)

Signal	Color bar
Measurement point	Pin ⑧ of IC403
Measurement instrument	Digital voltmeter
Color Control Center Adjustment	
Adjustment element	RV402
Specified value	0 ±10mVdc
Color Control Check	
Specified value	Fully clockwise (↻): Over 130mVdc Fully counterclockwise (↺): Under −130mVdc

Note: Set COLOR CONTROL knob to center position previously.

[Adjustment procedure]

1) Adjust to 0 ±10mVdc with RV402.

[Checking procedure]

1) Turn the COLOR CONTROL fully clockwise (↻) and confirm that it is over 130mVdc.
2) Turn the COLOR CONTROL fully counterclockwise (↺) and confirm that it is under −130mVdc.

1-2-23. Yellow out Level Adjustment (CY-2 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV212
Specified value	470 ±30mV (yellow chroma level)

[Adjustment procedure]

1) Adjust to 470 ±30mV with RV212.

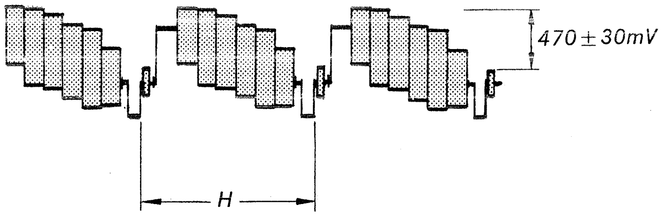


Fig. 1-22.

1-2-24. BURST Phase Adjustment (CY-2 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Vectorscope
Adjustment element	RV404
Specified value	Chroma each color luminance point should be within the specified frame (inside of ⊞).

[Adjustment procedure]

1) Adjust RV404 so that the chroma each color luminance point should be within the specified frame (inside of ⊞).

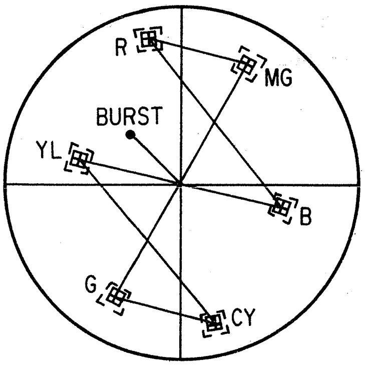


Fig. 1-23.

1-2-25. BURST Level Adjustment (CY-2 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV405
Specified value	300 ±20mV (BURST level)

[Adjustment procedure]

1) Adjust to 300 ±20mV with RV405.

Note: Since this adjustment and "1-2-24. Burst Phase Adjustment" influence each other, repeat the adjustments until both specified values are satisfied.

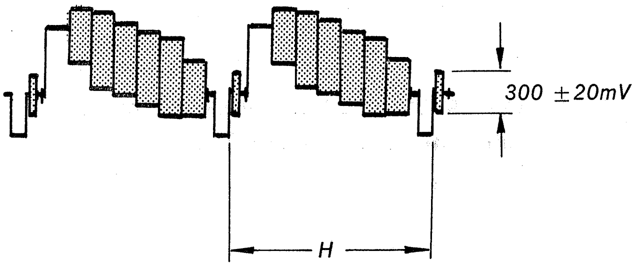


Fig. 1-24.

1-2-26 (1). O/A Frequency Characteristic Adjustment (CY-2 board) (Using color bar signal)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV002
Specifications	Minimize the spike at border of YELLOW and CYAN.

[Adjustment procedure]

1) Turn RV002 fully counterclockwise (↺).
2) Shorten the spike at border of YELLOW and CYAN by turning RV002 clockwise (↻), and stop it directly before it disappears.

Note: Do not turn RV002 too much, or the angles of CYAN round off.→N. G.

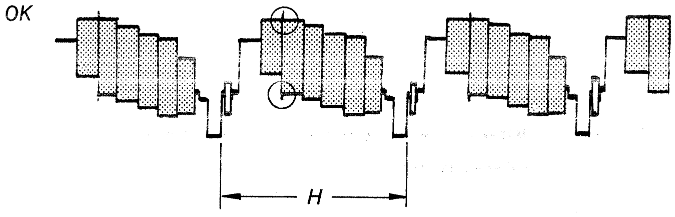


Fig. 1-25.

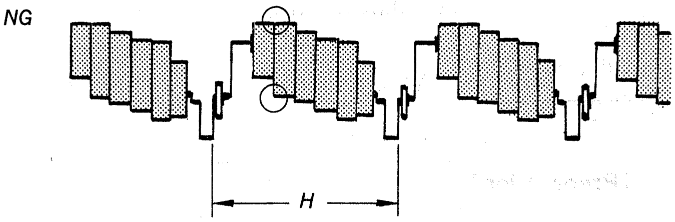


Fig. 1-26.

1-2-26 (2). O/A Frequency Characteristic Adjustment(CY-2 board) (Using sweep signal)

Signal	Sweep
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV002
Specified value	Make flat around 2—4MHz.

[Adjustment procedure]

1) Adjust RV002 so that the waveform of 2 — 4MHz becomes flat.

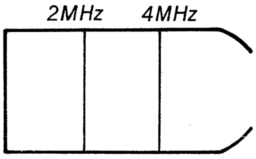


Fig. 1-27.

1-2-27. VIDEO ART CONTROL Level Adjustment (VP-8 board)

Signal	Color bar
Measurement point	CH1: Pin ④ of IC907 CH2: Pin ⑤ of IC907
Measurement instrument	Oscilloscope (DC range)
Adjustment element	RV905
Specified value	0.9 ±0.1V

[Preparation]

1) Set VIDEO ART control to CENTER position.

[Adjustment procedure]

1) Adjust to 0.9 ±0.1V with RV905.

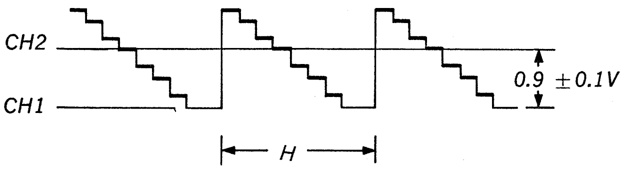


Fig. 1-28.

1-2-28. VIDEO ART CLAMP Level Adjustment (VP-8 board)

Signal	Color bar
Measurement point	TP901 (CY-2 board)
Measurement instrument	Oscilloscope
Adjustment element	RV904
Specified value	0 ±0.1V

[Adjustment procedure]

1) Confirm the waveform when VIDEO ART REVERSE switch is ON.
2) Confirm the waveform when VIDEO ART REVERSE switch is OFF and adjust portion Ⓐ to 0 ±0.1V with RV904.

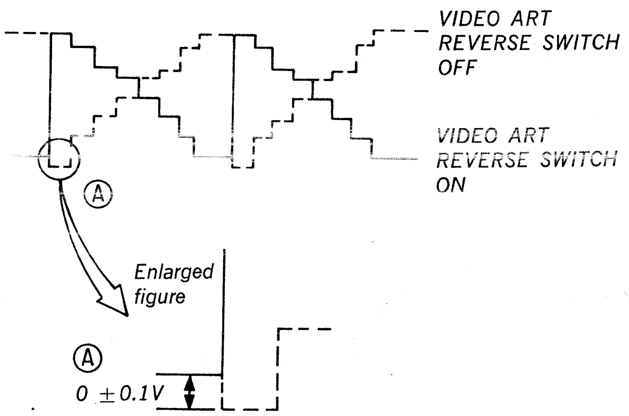


Fig. 1-29.

1-2-29. COLOR CORRECT CARRIER BALANCE Adjustment (CY-2 board)

Signal	Color bar
Measurement point	Emitter of Q422
Measurement instrument	Oscilloscope
Adjustment element	RV407 RV408
Specified value	Minimum (below 30mVp-p)

[Preparation]

1) Set COLOR CORRECT switch to ON.
2) Short the collector of Q416 and GND.

[Adjustment procedure]

1) Adjust RV407 and RV408 alternately so that the amplitude becomes minimum (below 30mVp-p).

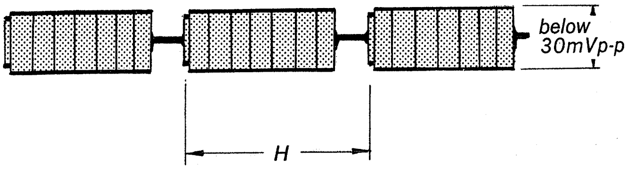


Fig. 1-30.

1-2-30. COLOR CORRECT Level Adjustment (CY-2 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV409
Specified value	400 ±50mV (color correct volume)

[Preparation]

1) Turn the COLOR CONTROL fully counterclockwise (↺).
2) Set COLOR CORRECT switch to ON.

[Adjustment procedure]

1) Maximize the color correct volume with the COLOR CORRECT lever.
2) Adjust RV409 so that chroma component on white becomes 400±50mV.

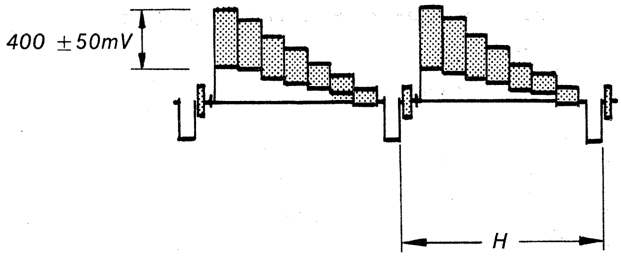


Fig. 1-31.

1-2-31. COLOR CORRECT Phase Adjustment (CY-2 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Vectorscope
Adjustment element	RV403
Specified value	0 ±4° (The two luminance points come together on R–Y axis.)

[Preparation]

1) Turn the COLOR CONTROL fully counterclockwise (↺).
2) Set COLOR CORRECT switch to ON.
3) Raise COLOR CORRECT lever fully.

[Adjustment procedure]

1) Adjust with RV403 so that the two luminance points come together on R–Y axis.

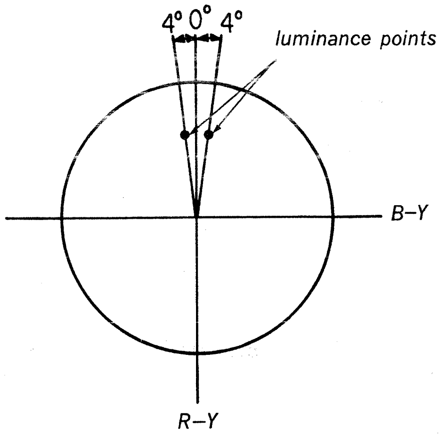


Fig. 1-32.

1-2-32. Chroma Clip Adjustment (CY-2 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV213
Specified value	900 ±50mV

[Preparation]

1) Turn COLOR CONTROL fully counterclockwise.
2) Set COLOR CORRECT switch to ON.
3) Set WIDE switch to ON.
4) Set COLOR CORRECT lever to the upper right position (on the border of red and blue).

[Adjustment procedure]

1) Adjust chroma component on white to 900 ±50mV with RV213.

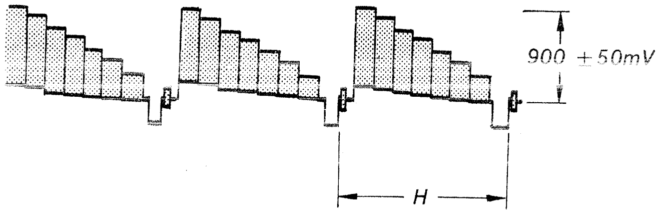


Fig. 1-33.

1-2-33. WHITE CLIP Adjustment (CY-2 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV210
Specified value	500 ±100mV

[Preparation]

1) Turn COLOR control fully counterclockwise (↺).
2) Set COLOR CORRECT switch to ON.
3) Set WIDE switch to ON.
4) Pull up the COLOR CORRECT lever to the upper right (on the border of red and blue).
5) Set WHITE CLIP switch to ON.

[Adjustment procedure]

1) Adjust chroma component on white to 500 ±100mV with RV210.

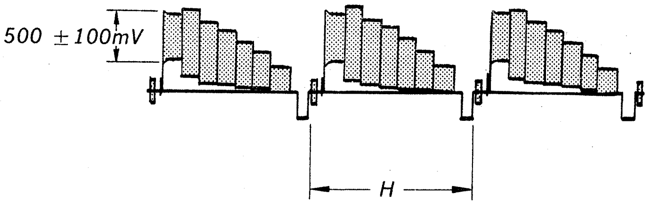


Fig. 1-34.

1-2-34. C-γ Adjustment (CY-2 board)

Signal	Color bar
Measurement instrument	Oscilloscope
Adjustment element	RV205
Specified value	0 ±40mV (Level difference between BLANKING portion and 100% white portion.)

[Adjustment procedure]

1) Adjust the level difference between BLANKING portion and 100% white portion to 0 ±40mV with RV205.

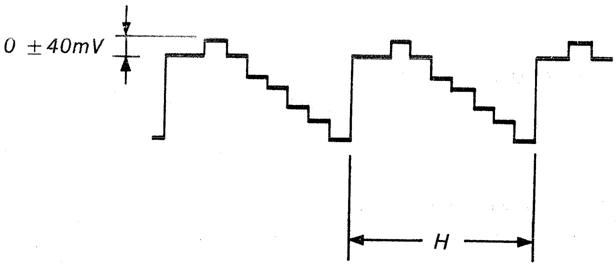


Fig. 1-35.

1-2-35. BACK COLOR BAR GEN Adjustment (SA-25 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV701
Specified value	7.2 ±0.2μsec.

[Preparation]

1) Set WIPE PATTERN ◨ switch to ON.
2) Raise WIPE lever fully.
3) Set VIDEO ART control to maximum.

[Adjustment procedure]

1) Adjust to 7.2 ±0.2μsec with RV701.

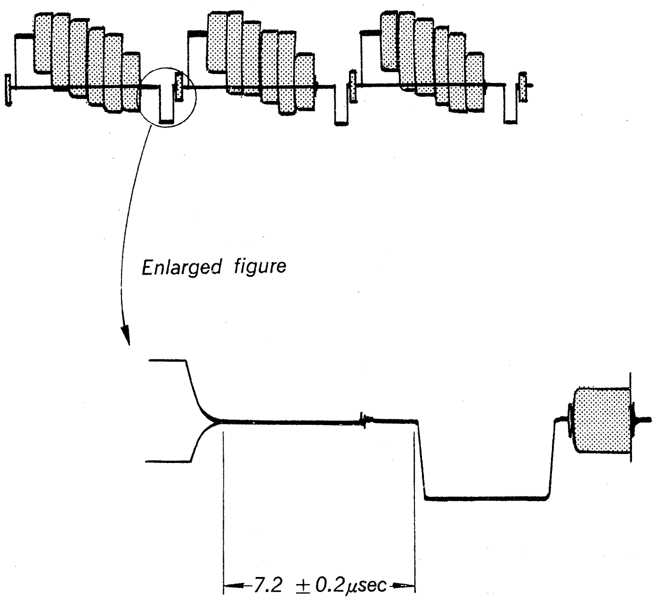


Fig. 1-36.

1-2-36. BACK COLOR Y Level Adjustment (SA-25 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV706
Specified value	520 ±20mV (the level between pedestal and the white (75%) peak without sync)

[Preparation]

1) Set WIPE PATTERN ◧ switch to ON.
2) Raise WIPE lever fully.
3) Set VIDEO ART control to maximum.

[Adjustment procedure]

1) Adjust to 520 ±20mV with RV706.

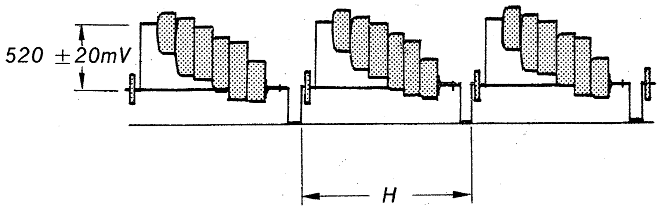


Fig. 1-37.

1-2-37. BACK COLOR CHROMA Level Adjustment (SA-25 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV704
Specified value	YELLOW portion : 480 ±40mVp-p

[Preparation]

1) Set WIPE PATTERN ◧ switch to ON.
2) Raise WIPE lever fully.
3) Set VIDEO ART control to maximum.

[Adjustment procedure]

1) Adjust the level of yellow portion to 480 ±40mVp-p with RV704.

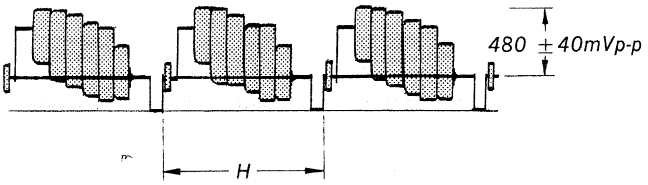


Fig. 1-38.

1-2-38. ACC Adjustment (SA-25 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV705
Specified value	YELLOW portion : 250 ±50mVp-p

[Preparation]

1) Mount a 39Ω resistor in parallel with R001 on CY-2 board.
2) Set WIPE PATTERN ◨ switch to ON.
3) Raise WIPE lever fully.
4) Set VIDEO ART control to maximum.

[Adjustment procedure]

1) Adjust the level of YELLOW portion to 250 ±50mVp-p with RV705.

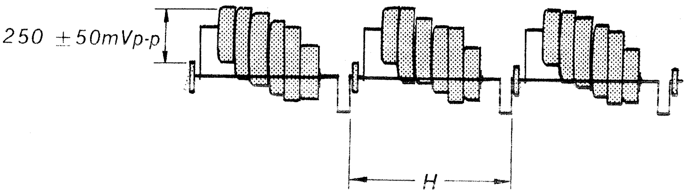


Fig. 1-39.

1-2-39. BACK COLOR BP701 Adjustment (SA-25 board)

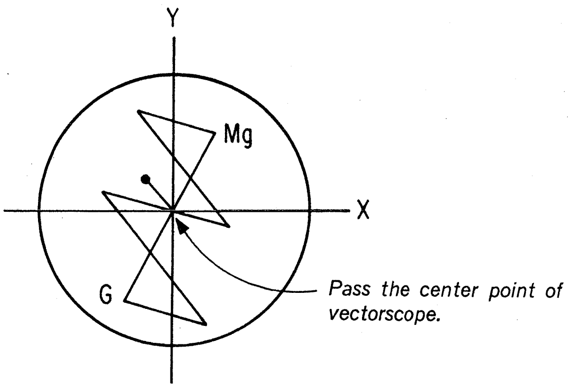
Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Vectorscope
Adjustment element	BP701
Specifications	The flyback line between G-Mg should pass through center point on vectorscope screen.

[Preparation]

1) Set WIPE PATTERN ◨ switch to ON.
2) Raise WIPE lever fully.

[Adjustment procedure]

1) Adjust BP701 so that the flyback line between G-Mg should pass through center on vectorscope screen.



Pass the center point of vectorscope.

Fig. 1-40.

1-2-40. BACK COLOR Output Adjustment (SA-25 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Vectorscope
Adjustment element	Phase: RV703 Level: RV704
Specifications	Chroma should be within the specified frame.

[Preparation]

1) Set WIPE PATTERN ◨ switch to ON.
2) Raise WIPE lever fully.

[Adjustment procedure]

1) Adjust RV703 and RV704 alternately so that each chroma color comes to the center of the specified frame ⊞.

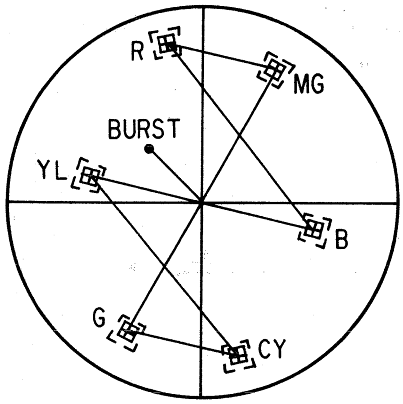


Fig. 1-41.

1-2-41. WIPE H RAMP Level Adjustment (SA-25 board)

Signal	Color bar
Measurement point	TP802 (Emitter of Q804)
Measurement instrument	Oscilloscope
Adjustment element	RV801
Specified value	2.0 ±0.1Vp-p

[Adjustment procedure]

1) Adjust to 2.0 ±0.1Vp-p with RV801.

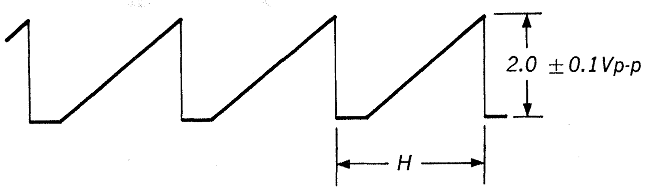


Fig. 1-42.

1-2-42. WIPE H DC Level Adjustment (SA-25 board)

Signal	Color bar
Measurement point	TP802 (Emitter of Q804)
Measurement instrument	Oscilloscope (DC range)
Adjustment element	RV802
Specified value	1.5 ±0.1Vdc

[Adjustment procedure]

1) Adjust to 1.5 ±0.1Vdc with RV802.

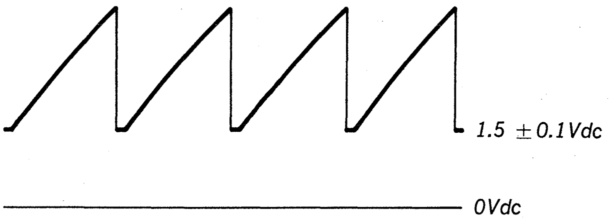


Fig. 1-43.

1-2-43. WIPE $\overline{H}$ DC Level Adjustment (SA-25 board)

Signal	Color bar
Measurement point	TP803 (Emitter of Q806)
Measurement instrument	Oscilloscope (DC range)
Adjustment element	RV803
Specified value	1.5 ±0.1Vdc

[Adjustment procedure]

1) Adjust to 1.5 ±0.1Vdc with RV803.

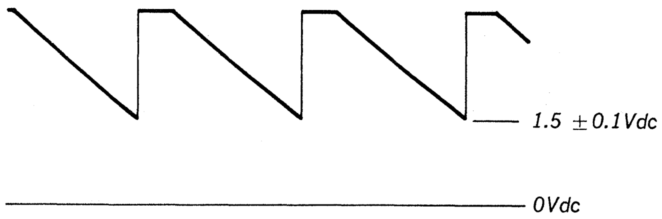


Fig. 1-44.

1-2-44. WIPE V RAMP Level Adjustment (SA-25 board)

Signal	Color bar
Measurement point	TP806 (Emitter of Q810)
Measurement instrument	Oscilloscope
Adjustment element	RV804
Specified value	2.0 ±0.1Vp-p

[Adjustment procedure]

1) Adjust to 2.0 ±0.1Vp-p with RV804.

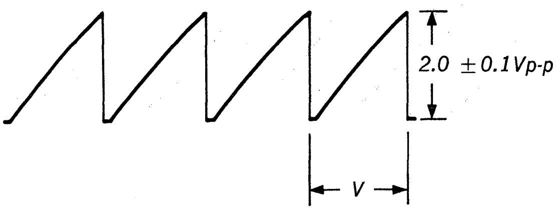


Fig. 1-45.

1-2-45. WIPE V DC Level Adjustment (SA-25 board)

Signal	Color bar
Measurement point	TP806 (Emitter of Q810)
Measurement instrument	Oscilloscope (DC range)
Adjustment element	RV805
Specified value	1.5 ±0.1Vdc

[Adjustment procedure]

1) Adjust to 1.5 ±0.1Vdc with RV805.

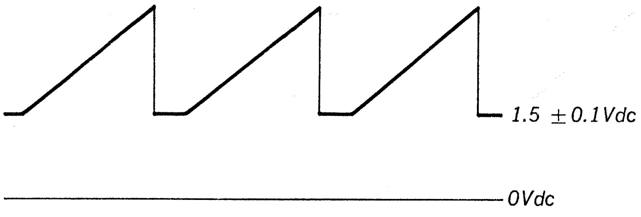


Fig. 1-46.

1-2-46. WIPE V DC Level Adjustment (SA-25 board)

Signal	Color bar
Measurement point	TP807 (Emitter of Q812)
Measurement instrument	Oscilloscope (DC range)
Adjustment element	RV806
Specified value	1.5 ±0.1Vdc

[Adjustment procedure]

1) Adjust to 1.5 ±0.1Vdc with RV806.

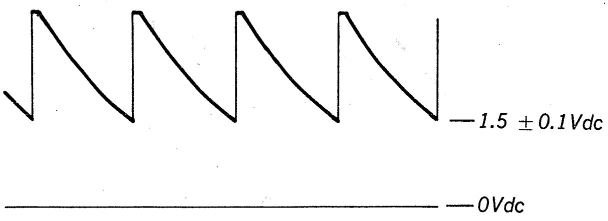


Fig. 1-47.

1-2-47 (1). WIPE Position Adjustment 1 (SA-25 board) (Using oscilloscope)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	Portion A : RV802 Portion B : RV806 Portion C : RV805
Specified value	Portion A : 2.0 ±0.5μsec Portions B, C : 0.8 ±0.2msec

[Preparation]

1) Set WIPE PATTERN ◧, ◨, ⬒, ⬓ switchs to ON.
2) Set BACK COLOR SELECT switch to BLUE.
3) Set VIDEO FADER switch to ON.
4) Raise FADER lever to uppermost position.
5) Set the width (horizontally) of blue portion of wipe pattern to 2μsec with wipe lever.

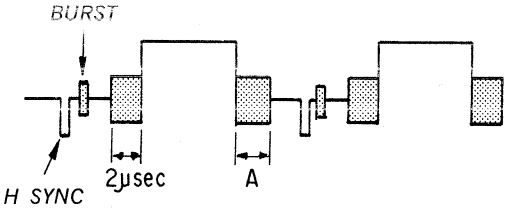


Fig. 1-48.

[Adjustment procedure]

1) Adjust portion A to 2.0 ±0.5μsec with RV802.
2) Adjust portion B with RV806, portion C with RV805 to 0.8 ±0.2msec.
3) Since this adjustment and "1-2-48 (1). WIPE Position Adjustment 2" influence each other, confirm this adjustment once again after the adjustment "1-2-48 (1)." is completed.

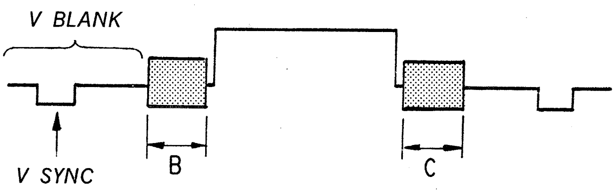


Fig. 1-49.

1-2-47 (2). WIPE Position Adjustment 1 (SA-25 board) (Using under scan monitor)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Under scan monitor (13—20 inches)
Adjustment element	Portion A : RV802 Portion B : RV806 Portion C : RV805
Specified value	10 ±5mm (for all)

[Preparation]

1) Set WIPE PATTERN ◧ , ◨ , ⬒ , ⬓ switchs to ON.
2) Set BACK COLOR SELECT switch to YELLOW
3) Adjust the width in white of WIPE PATTERN to 10mm with WIPE lever.

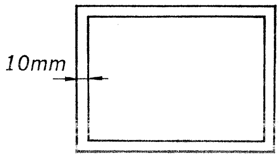


Fig. 1-50.

[Adjustment procedure]

1) Adjust portion A, portion B and portion C to 10 ±5mm with RV802, RV806 and RV805 respectively.

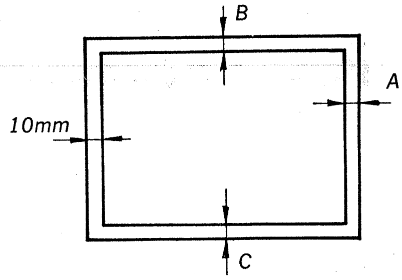


Fig. 1-51.

1-2-48 (1). WIPE Position Adjustment 2 (SA-25 board) (Using oscilloscope)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV804
Specified value	1.4 ±0.5msec

[Preparation]

1) Set WIPE PATTERN ◧ , ◨ , ⬒ , ⬓ switches to ON.
2) Set BACK COLOR SELECT switch to BLUE.
3) Set VIDEO FADER switch to ON.
4) Raise FADER lever to uppermost position.
5) Adjust the width of white portion in horizontal wipe pattern to 4μsec with WIPE lever.

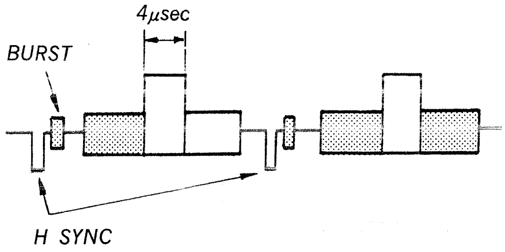


Fig. 1-52.

[Adjustment procedure]

1) Confirm that the width of white portion in vertical wipe pattern is within 1.4 ±0.5msec.
2) If it is under 1.4 ±0.5msec, turn RV804 counterclockwise quite a little (5—10 degrees), and perform "1-2-47 (1)" adjustment once again.
3) If it is over 1.4 ±0.5msec, turn RV804 clockwise quite a little (5—10 degrees), and perform "1-2-47 (1)" adjustment once again.
4) Since this adjustment and "1-2-47 (1)" adjustment influence each other, repeat the adjustments until both specifications are satisfied.

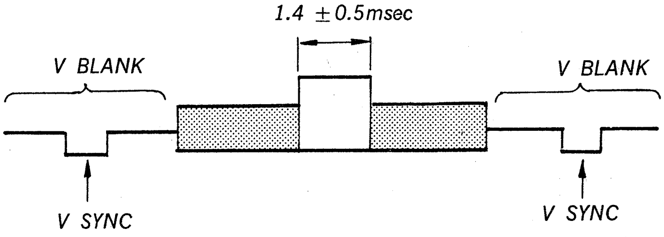


Fig. 1-53.

1-2-48 (2). WIPE Position Adjustment 2 (SA-25 board) (Using under scan monitor)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Under scan monitor (13—20 inches)
Adjustment element	RV804
Specified value	15 ±5mm

[Preparation]

1) Set WIPE PATTERN switches ◧ , ◨ , ⬒ , ⬓ to ON.
2) Set the BACK COLOR SELECT switch to YELLOW.
3) Adjust the horizontal width of the window of WIPE PATTERN to 20mm.

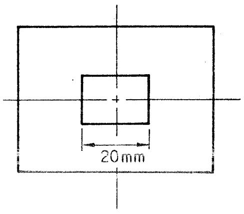


Fig. 1-54.

[Adjustment procedure]

1) Adjust the vertical width of the window to 15 ±5mm with RV804.

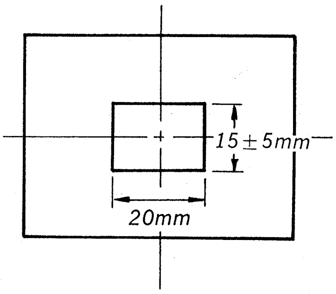


Fig. 1-55.

1-2-49. H WIPE Set Adjustment (SA-25 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV801

[Adjustment procedure]

1) Set WIPE PATTERN ◧ switch to ON.
2) Set COLOR SELECT switch to GREEN.
3) Confirm BACK COLOR GREEN does not appear on output waveform when WIPE lever is set to minimum position.

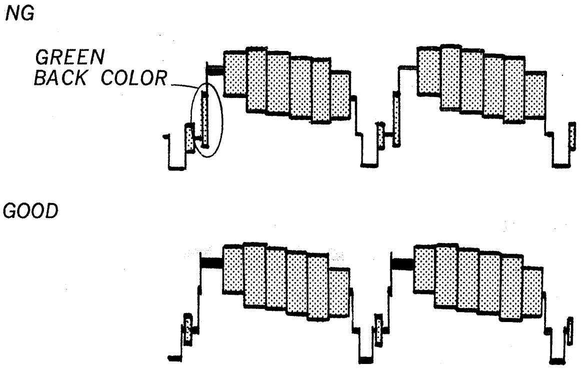


Fig. 1-56.

4) Confirm only BACK COLOR GREEN appears on output waveform when WIPE lever is set to maximum position.

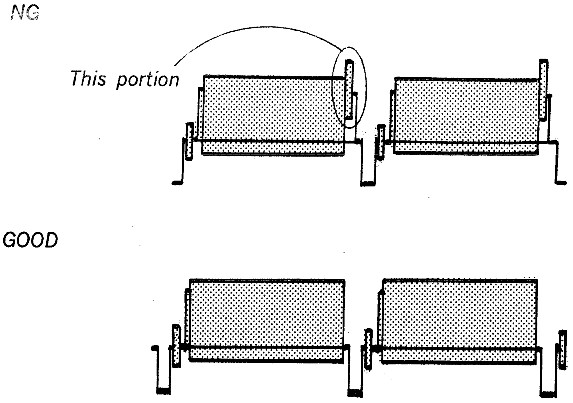


Fig. 1-57.

5) If 3) and 4) are not satisfied, adjust with RV801 until the both conditions are satisfied.
6) Reconfirm the above steps 3) and 4) when WIPE PATTERN ◧ switch is set to OFF and ◨ switch to ON.
7) When turning RV801, readjust 1-2-47 and 48.

1-2-50. V WIPE Set Adjustment (SA-25 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV804

[Adjustment procedure]

1) Set WIPE PATTERN ⬒ switch to ON.
2) Set COLOR SELECT switch to GREEN.
3) Confirm BACK COLOR GREEN does not appear on the output waveform WIPE lever is set to minimum position.

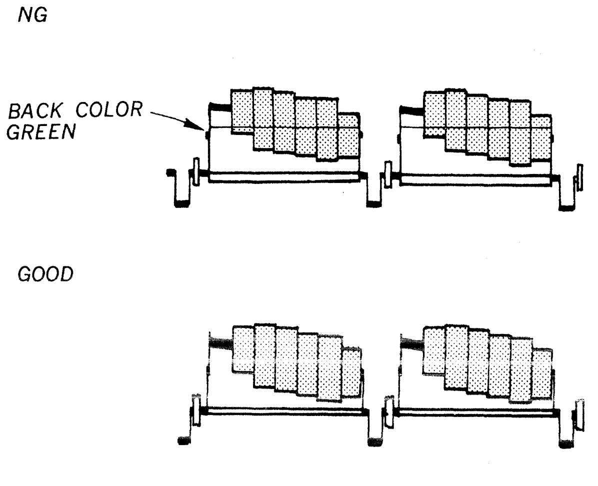


Fig. 1-58.

4) Confirm only BACK COLOR GREEN appears on output waveform when WIPE lever is set to maximum position.

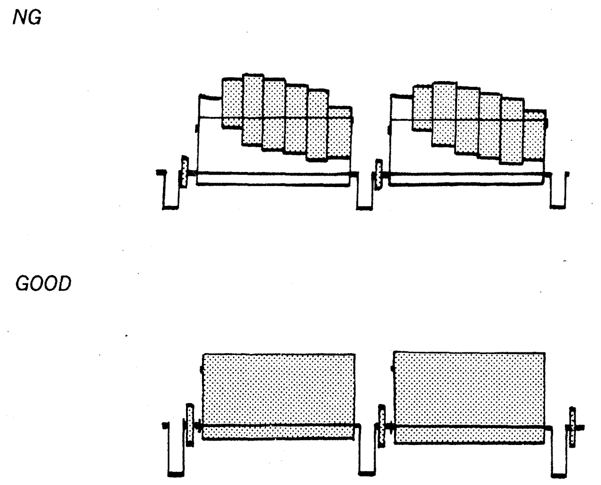


Fig. 1-59.

5) If 3) and 4) are not satisfied, adjust with RV804 until the both conditions are satisfied.
6) Reconfirm the above steps 3) and 4), when WIPE PATTERN ⬒ switch is set to OFF and ⬓ switch to ON.
7) When turning RV804, readjust 1-2-47 and 48.

1-2-51. FADER CONTROL Voltage Adjustment (CY-2 board)

Signal	Color bar
Measurement point	TP851
Measurement instrument	Digital Voltmeter
Adjustment element	RV851
Specified value	FADER lever uppermost position: 3.10 ±0.05Vdc FADER lever lowermost position: 3.05 ±0.05Vdc

[Preparation]

1) Set FADER VIDEO switch to ON.
2) Raise FADER lever fully.

[Adjustment procedure]

1) Adjust to 3.10 ±0.05Vdc with RV851.
2) Move FADER lever to its lowermost position.
3) Confirm that the voltage is over 3.00Vdc
4) If the specified value is not satisfied, adjust to 3.05 ±0.05Vdc with RV851.

1-2-52. FADER WHITE Level Adjustment (CY-2 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV900
Specified value	0 ±10mV

[Preparation]

1) Set WIPE PATTERN ◨ , ◧ , ⬓ , ⬒ switches to ON.
2) Raise WIPE lever to its centeral position.
3) Set COLOR SELECT switch to WHITE.
4) Set FADER VIDEO switch to ON.
5) Raise FADER lever to its uppermost position.

[Adjustment procedure]

1) Adjust to 0 ±10mV with RV900.

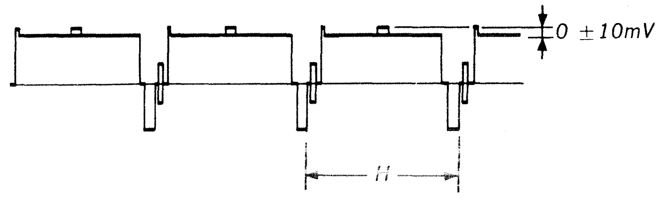


Fig. 1-60.

1-3. AUDIO BLOCK ADJUSTMENT

Connect the instruments as follows.

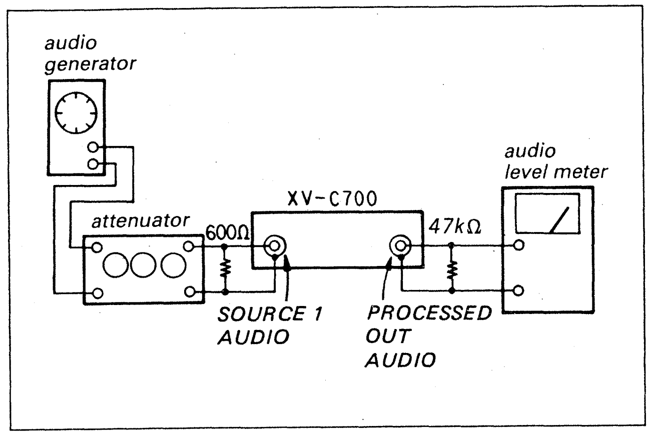


Fig. 1-61.

1-3-1. AUDIO PROCESSED OUT Level Adjustment (SA-25 board)

Signal	1kHz, −10dBs
Measurement point	PROCESSED OUT (47kΩ terminated)
Measurement instrument	Level meter
Adjustment element	Lch: RV602 Rch: RV601
Specified value	−10.0 ±0.5dBs

[Adjustment procedure]

1) Adjust RV602 so that the input level at Lch of SOURCE IN 1 becomes −10.0 ±0.5dBs.
2) Also adjust RV601 so that input level at Rch is −10.0 ± 0.5dBs.

1-3-2. AUDIO DISTORTION Check (SA-25 board)

Signal	330Hz, 400Hz, 1kHz −10dBs (SOURCE IN)
Measurement point	PROCESSED OUT (47kΩ terminated)
Measurement instrument	Distortion meter
Specified value	MAX. 0.3%

[Preparation]

1) Turn the MIC LEVEL control clockwise fully.
2) Turn the LINE LEVEL control clockwise fully.
3) Turn the SOURCE LEVEL control clockwise fully.
4) Turn the MASTER control clockwise fully.
5) Set the FADER AUDIO switch to ON.

[Checking procedure]

1) Input 330Hz, −10dBs to SOURCE IN 1 (L) and (R). Then, confirm that the distortion rate is below 0.3%.
2) Also, input 400Hz, −10dBs and 1kHz, −10dBs, and then, confirm that the distortion rate is below 0.3%.

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to ON.

05 ±0.

1-2-52. FADER WHITE Level Adjustment (CY-2 board)

Signal	Color bar
Measurement point	PROCESSED OUT (75Ω terminated)
Measurement instrument	Oscilloscope
Adjustment element	RV900
Specified value	0 ±10mV

[Preparation]

1) Set WIPE PATTERN ◨, ◧, ⬓, ⬒ switches to ON.
2) Raise WIPE lever to its centeral position.
3) Set COLOR SELECT switch to WHITE.
4) Set FADER VIDEO switch to ON.
5) Raise FADER lever to its uppermost position.

[Adjustment procedure]

1) Adjust to 0 ±10mV with RV900.

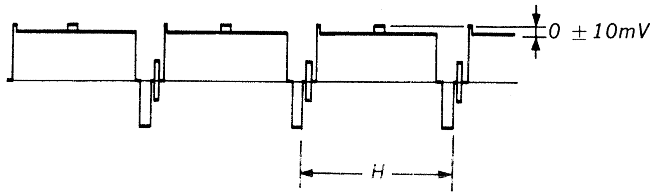


Fig. 1-60.

1-3. AUDIO BLOCK ADJUSTMENT

Connect the instruments as follows.

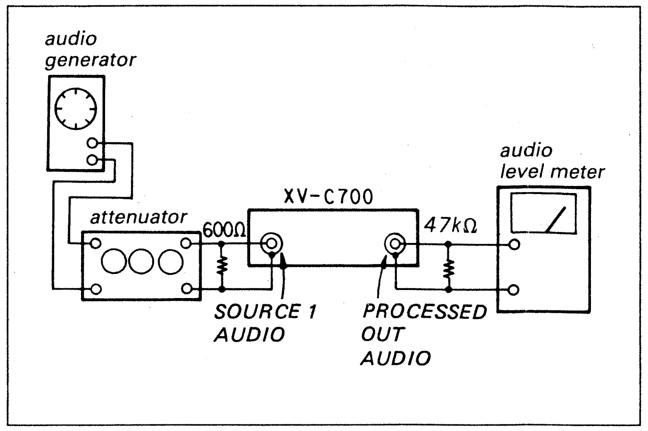

audio generator
attenuator
600Ω
XV-C700
47kΩ
audio level meter
SOURCE 1 AUDIO
PROCESSED OUT AUDIO

Fig. 1-61.

1-3-1. AUDIO PROCESSED OUT Level Adjustment (SA-25 board)

Signal	1kHz, −10dBs
Measurement point	PROCESSED OUT (47kΩ terminated)
Measurement instrument	Level meter
Adjustment element	Lch: RV602 Rch: RV601
Specified value	−10.0 ±0.5dBs

[Adjustment procedure]

1) Adjust RV602 so that the input level at Lch of SOURCE IN 1 becomes −10.0 ±0.5dBs.
2) Also adjust RV601 so that input level at Rch is −10.0 ± 0.5dBs.

1-3-2. AUDIO DISTORTION Check (SA-25 board)

Signal	330Hz, 400Hz, 1kHz −10dBs (SOURCE IN)
Measurement point	PROCESSED OUT (47kΩ terminated)
Measurement instrument	Distortion meter
Specified value	MAX. 0.3%

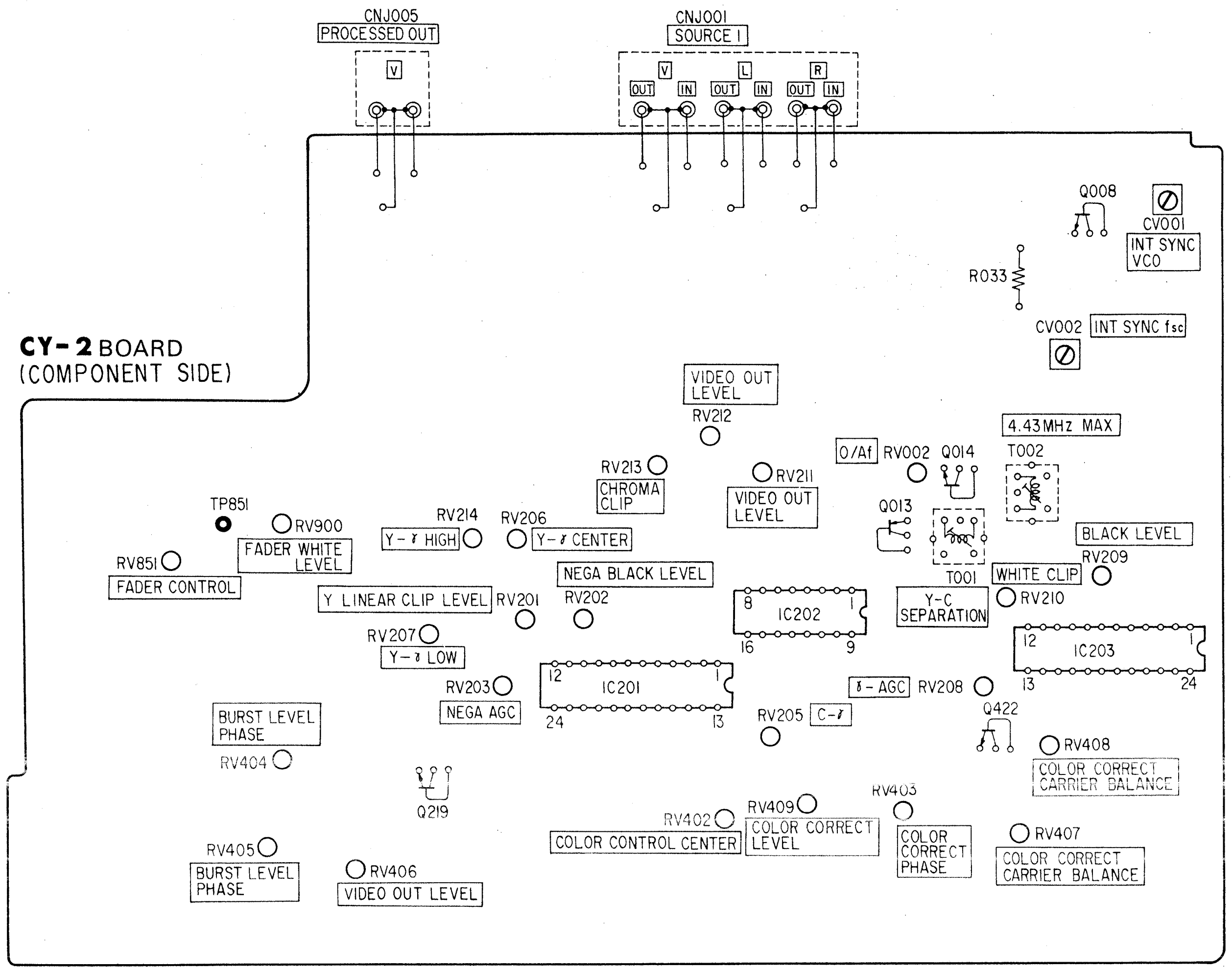
[Preparation]

1) Turn the MIC LEVEL control clockwise fully.
2) Turn the LINE LEVEL control clockwise fully.
3) Turn the SOURCE LEVEL control clockwise fully.
4) Turn the MASTER control clockwise fully.
5) Set the FADER AUDIO switch to ON.

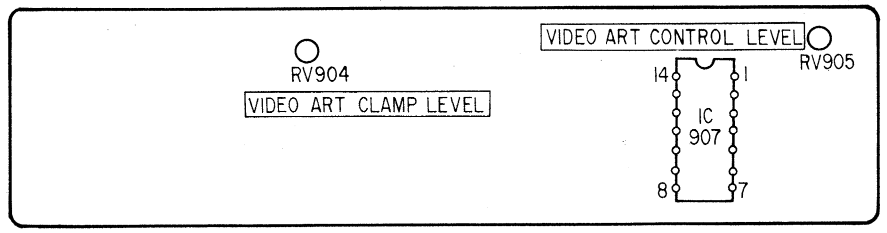
[Checking procedure]

1) Input 330Hz, −10dBs to SOURCE IN 1 (L) and (R). Then, confirm that the distortion rate is below 0.3%.
2) Also, input 400Hz, −10dBs and 1kHz, −10dBs, and then, confirm that the distortion rate is below 0.3%.

1-4. ADJUSTMENT ELEMENTS LOCATION

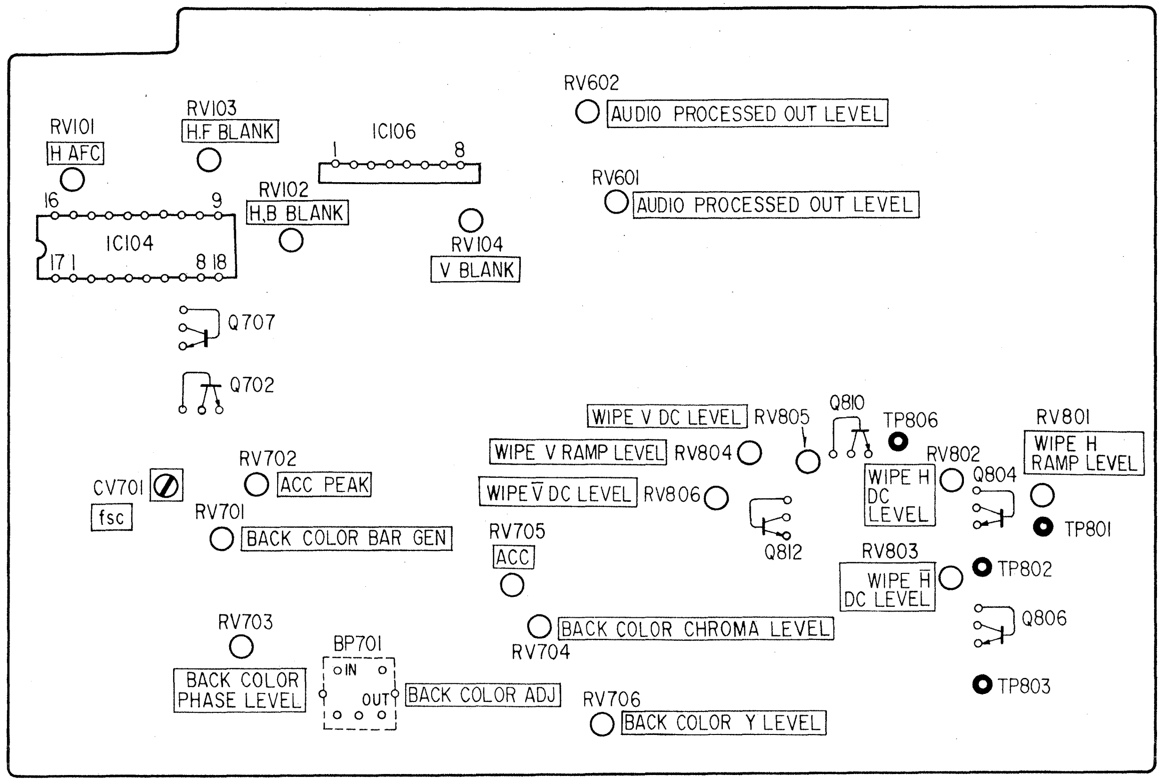

CNJ005
PROCESSED OUT
V
CNJ001
SOURCE I
V
L
R
OUT
IN
OUT
IN
OUT
IN
CY-2 BOARD
(COMPONENT SIDE)
Q008
CV001
INT SYNC VCO
R033
CV002
INT SYNC fsc
VIDEO OUT LEVEL
RV212
4.43MHz MAX
O/Af
RV002
Q014
T002
RV213
CHROMA CLIP
RV211
VIDEO OUT LEVEL
Q013
TP851
RV900
FADER WHITE LEVEL
RV214
Y-γ HIGH
RV206
Y-γ CENTER
BLACK LEVEL
RV209
RV851
FADER CONTROL
NEGA BLACK LEVEL
T001
WHITE CLIP
Y LINEAR CLIP LEVEL
RV201
RV202
IC202
Y-C SEPARATION
RV210
RV207
Y-γ LOW
IC203
RV203
IC201
γ-AGC
RV208
NEGA AGC
RV205
C-γ
Q422
BURST LEVEL PHASE
RV404
RV408
COLOR CORRECT CARRIER BALANCE
Q219
RV403
RV402
RV409
COLOR CORRECT LEVEL
COLOR CONTROL CENTER
COLOR CORRECT PHASE
RV405
BURST LEVEL PHASE
RV406
VIDEO OUT LEVEL
RV407
COLOR CORRECT CARRIER BALANCE

VP-8 BOARD (COMPONENT SIDE)


RV904
VIDEO ART CLAMP LEVEL
VIDEO ART CONTROL LEVEL
RV905
IC 907
14
1
8
7

—Continued on next page—

SA-25 BOARD (COMPONENT SIDE)


RV101
H AFC
RV103
H.F BLANK
IC106
1
8
16
9
IC104
17 1
8 18
RV102
H.B BLANK
RV104
V BLANK
RV602
AUDIO PROCESSED OUT LEVEL
RV601
AUDIO PROCESSED OUT LEVEL
Q707
Q702
WIPE V DC LEVEL
RV805
Q810
TP806
RV801
WIPE H RAMP LEVEL
WIPE V RAMP LEVEL
RV804
RV802
WIPE H DC LEVEL
Q804
WIPE V̄ DC LEVEL
RV806
Q812
TP801
CV701
fsc
RV702
ACC PEAK
RV701
BACK COLOR BAR GEN
RV705
ACC
RV803
WIPE H̄ DC LEVEL
TP802
Q806
RV703
BACK COLOR PHASE LEVEL
BP701
IN
OUT
BACK COLOR ADJ
BACK COLOR CHROMA LEVEL
RV704
RV706
BACK COLOR Y LEVEL
TP803